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TRADE AND COMMERCE

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PRIVATE  
AND  
PUBLIC  
INVESTMENT  
IN CANADA  
1926-1951







**PRIVATE AND PUBLIC  
INVESTMENT IN CANADA  
1926-1951**

UNIVERSITY OF TORONTO  
BUSINESS ADMINISTRATION  
READING ROOM

**DEPARTMENT OF TRADE AND COMMERCE  
OTTAWA**





## FOREWORD

Canadians in 1951 have embarked on the largest defence program in the history of the country barring all-out war. At the same time, business, individuals and governments are attempting to undertake an investment program surpassing any previous accomplishments. With substantially increased demand thus being made on the country's limited resources, some of the programs contemplated may not be realized. Other programs of a non-defence or related type are likely to be delayed as an economy gearing for defence devotes more materials and manpower to this purpose. Shortages of materials and competition for labour are occurring, resulting in some pressure on price and wage levels.

This is the second time in the course of the last few years that Canadians have experienced shortages and rising prices. The other occasion occurred in the immediate post-war period. Thus a very large volume of investment can be a problem to an economy already operating at high levels. The experience of the decade preceding World War II was exactly the opposite. Then, investment declined to a very low level, accompanied by mass unemployment and reduced incomes and standard of living. Our experience has been that investment, like exports, has been subject to substantial fluctuations over a period of time. Both have come to be regarded as very important factors to Canadian prosperity and development.

Up-to-date knowledge of the working of the Canadian economy can assist private business, individuals and governments in formulating intelligent decisions to cope with economic situations as they develop. Complete statistics of Canadian exports and imports are available in this country from Confederation to date. There has been great demand from various sections of the public and from governments for comprehensive and up-to-date information on private and public investment. The first attempt to provide such information was made in the report, "Public Investment and Capital Formation, A Study of Public and Private Investment Outlay, Canada, 1926-1941," prepared for the Dominion-Provincial Conference on Reconstruction, August 1945. The data on private and public investment have been revised, extended and analyzed in this report, which covers the period 1926 to 1951. The data are being kept up-to-date in forward-looking investment outlook documents tabled annually in Parliament.

The study is divided into three parts. The first appraises the effect of private and public investment on employment, income, output, prices and the standard of living. Capital expenditures are also analyzed in relation to resources and industrial development, and the growth and changing structure of the Canadian economy and its major regions. The second part contains the basic investment estimates and related data. The third and concluding part contains an explanation of what the estimates mean and how reliable they are, and provides relevant supplementary material.

This report was prepared by Dr. O. J. Firestone, the Department's Economic Adviser, whose pioneering work in the field of investment has contributed to greater knowledge on this subject in Canada. In undertaking this survey able assistance was rendered by Mr. J. H. Latimer, Mr. J. B. Thwaites and Mr. T. R. Vout, of the Department of Trade and Commerce.



Minister of Trade and Commerce.

Ottawa, November, 1951.





# CONTENTS

	PAGE
<b>PART I. Appraisal</b> .....	7
Section—	
1. Investment and the National Economy .....	9
2. Investment in Primary Industries and Construction Industry .....	25
3. Investment in Manufacturing .....	35
4. Investment in Utilities .....	72
5. Investment in Trade, Finance and Commercial Services .....	85
6. Investment in Housing and Institutions .....	89
7. Investment by the Federal Government .....	98
8. Investment by Provincial Governments .....	107
9. Investment by Municipal Governments .....	116
10. Investment on a Regional Basis .....	125
<b>PART II. Tabular Material</b> .....	143
<b>PART III. Supplementary Material</b> .....	209
Appendix—	
A. Concept and Definitions .....	211
B. Notes on Sources, Estimating Techniques and Quality of Estimates .....	214
C. Unemployment Relief Works and Related Projects .....	241
D. Investment for Direct War Purposes During World War II .....	245
<b>LIST OF CHARTS IN PART I</b> .....	249
<b>LIST OF TABLES IN PART II</b> .....	251



## **Part I**

## **Appraisal**





## PART I

### SECTION 1. INVESTMENT AND THE NATIONAL ECONOMY

Businessmen, individuals and governments in Canada purchase a great variety of goods and services each year. Many of these goods and services are used up in the process of daily living. Others are stored up temporarily for later sale as required, or are durable facilities used in producing, transporting, selling and servicing other types of goods and services. Outlays made to acquire goods and services of the former type are usually described as consumer expenditures, and outlays for the latter kind as capital or investment expenditures. Governments spend on both durable goods which add to the stock of capital in the country, and on other goods and services which are used up in the process of performing public functions.

#### What is Meant by Investment

There are many definitions of what constitutes investment,<sup>1</sup> but although terminology differs somewhat there is now substantial international agreement on the subject.<sup>2</sup> Three types of flows of goods and services are most commonly covered by the term "investment": (1) expenditures on durable physical assets made by entrepreneurs, that is, (a) outlay on construction projects and for the purchase of machinery and equipment; (b) outlay on new house building, including major improvements and alterations made by both owner-occupiers and landlords; and (c) outlay by governments on public buildings, engineering works, installations, resources development and machinery and equipment; (2) expenditures which effect a net change in the volume of inventories held by the business community; and (3) payments and receipts which result in a net change in foreign assets held by Canadians. Investment in durable physical assets—sometimes including but more frequently excluding the public investment component—and inventories are then combined to yield domestic gross investment or domestic gross capital formation. Net foreign investment can be added to this quantity to obtain a more comprehensive measurement of total gross investment.

This study is concerned with an appraisal of the impact on Canadian economic development and production, employment and income, of investment in durable physical assets.<sup>3</sup> The data examined, therefore, cover in the main capital expenditures made on new construction and machinery and equipment, as well as repair and maintenance of structures, installations, and machinery and equipment by both private bodies and

public authorities. Included therefore are all relevant expenditures by Canadian business, institutions, governments and individuals. The investment estimates presented in this report are without deducting capital used up in the process of employing durable physical assets. A brief discussion of net investment in durable physical assets, that is, after deducting depreciation and similar business costs from investment in plant, housing and equipment, will be found on p. 24.

A distinction is frequently made between expenditures by private business, institutions and individuals, described as "private investment", and the corresponding outlays by governments and their agencies, described as "public investment." This distinction is made because the motives of private investors for making capital expenditures may differ widely from those of governments. A business man will make a capital expenditure in anticipation of a direct return from the investment at some time in the future. Governments frequently make capital outlays designed primarily to benefit the users of the public facilities thus created, e.g., the building of a mining road will promote development of newly discovered mineral deposits, and the provision of water and sewage facilities on the outskirts of urban communities will encourage the building of new homes.

Another reason why the distinction between private and public investment is useful is that the latter may be financed by taxation as well as the other means open to the private sector of the economy, that is, absorption of savings of individuals, corporations and non-residents. The economic impact of public capital expenditures will be different depending on whether they are financed by taxation or by borrowing.

#### Economic Significance of Investment

The aggregate of a nation's output is commonly known as "gross national product."<sup>4</sup> In Canada, as in other industrialized countries, private and public investment absorb different proportions of the gross national product in any given year. In periods of great prosperity private and public investment together may absorb as much as 20 to 25 per cent of the total output of the country, and may exceed the value of Canadian export trade, although the latter is frequently referred to as the mainstay of Canada's prosperity (see Figure 1). The devotion of such a substantial proportion of Canadian resources and manpower to the expansion of the

<sup>1</sup> For a brief discussion of concepts and definitions, see Appendix A. A more detailed appraisal will be found in *Public Investment and Capital Formation, A Study of Public and Private Investment Outlay, Canada, 1926-1941*, Dominion-Provincial Conference on Reconstruction, Ottawa, August 1945.

<sup>2</sup> *National Income Statistics of Various Countries, 1938-1948*, United Nations, Statistical Office, New York, 1950, p. 13, and *Statistics of Capital Formation*, and Technical Appendix, *Definition and Measurement of Capital Formation*, memorandum prepared by the Secretary-General, United Nations, New York, April 10, 1951.

<sup>3</sup> For more comprehensive information on investment in inventories and net foreign investment see the following publications of the Dominion Bureau of Statistics, Ottawa:

*National Accounts Income and Expenditure, 1926-1947*

*National Accounts Income and Expenditure, 1948-1949*

*National Accounts Income and Expenditure, Preliminary 1950*

*Inventories and Shipments by Manufacturing Industries (monthly)*

*The Canadian Balance of International Payments, 1926 to 1948*

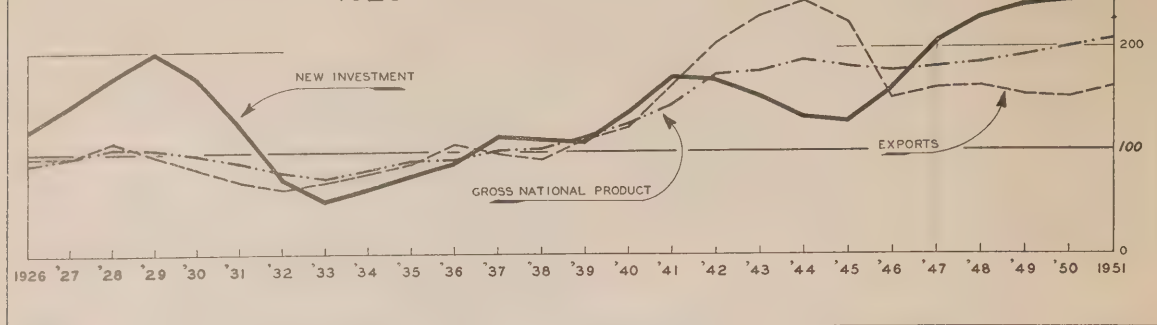
*The Canadian Balance of International Payments, Preliminary Statement, 1949 and 1950*

<sup>4</sup> This is equal to gross national expenditure, which is defined as the aggregate of expenditures of all final goods and services, measured by the value of sales of these goods and services at market prices to all sections of the community.

- FIGURE 1 -

INDEX 1935-39 = 100

# VOLUME OF NEW INVESTMENT, EXPORTS AND GROSS NATIONAL PRODUCT, CANADA, 1926-1951



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE.

country's capital equipment provides employment and income both directly and indirectly to a large section of the Canadian population.

There are two further reasons why the importance of investment expenditures to the economy is quite out of proportion to the actual amounts involved, whether these be large in periods of prosperity or small in periods of mass unemployment and low incomes.<sup>1</sup>

The first is the contribution which capital expenditures make to the development of the economy. The productive capacity of the nation depends in large measure on the capital equipment available, and additions to the stock of capital already in existence increase that productive capacity. Further, as new techniques and processes are developed, their adoption frequently requires large capital expenditures. It is, therefore, important that investment be maintained in order that economic advancement be continued.

Moreover, a high level of investment may affect the general price structure of the economy and at times may intensify inflationary pressures.

The relationship of capital expenditures to inflation has been summarized as follows:

*"This effect of investment upon prices is directly related to our willingness to save part of our current income. These savings are only partially made by the same individuals or business firms that do the investing. In fact, the investment decisions, the decision of an individual to buy a new house or a business firm to build a new factory are often made quite independently of the decision to save part of current income. Although part of the investment may be financed out of current savings, a substantial part may also be paid for by drawing on past savings or by borrowing from the banks or other financial institutions. This means that some groups in society are spending more than their current income.*

*Unless other groups save enough to offset this excess, the country as a whole will be trying to spend more than it is currently producing. If this occurs, the attempt to make these extra expenditures places an upward pressure on prices. In general, once the economy is fully employed, if investment expenditures just balance the amount of savings which all groups in society are prepared to make, prices are likely to stay at about the same level. If investment expenditures are greater than this, an attempt to make these expenditures will tend to force up the level of prices. On the other hand if investment expenditures fall short of the amount of savings which all groups in the economy are prepared to make, total expenditures will prove too small to maintain the existing price and income levels. The result will be a decline in prices or in production or in employment or in all three."*<sup>2</sup>

This impact of a large volume of investment on the general price level was of particular importance in the reconstruction and readjustment periods which followed World Wars I and II. The problem is again coming to the fore in the present period of defence preparations, following a worsening of international relations after the middle of 1950.

The foregoing comments on the special significance of investment refer largely to new investment, that is, outlay on the expansion, improvement and major alteration of capital equipment. Repair and maintenance expenditures, which absorb similar resources, are also important since they are essential for the proper upkeep of physical capital. Further, because repair and maintenance expenditures can to some extent be postponed when economic conditions are unfavourable, this type of outlay also fluctuates significantly. The variability of repair and maintenance expenditures, however, is less marked than that which characterizes capital expenditures. Moreover, when total industrial activity

<sup>1</sup> It bears emphasis that other sectors of the economy absorbing resources similar to those going into new investment may also undergo substantial fluctuations. This applies particularly to consumer durables such as motor cars and equipment and furnishings for household use. But this study is concerned more directly with investment in durable physical assets rather than with an appraisal of its impact on material-supplying industries. The latter aspect as well as the contribution which new investment may make to economic development and the improvement of the standard of living is examined in greater detail in another study. See *Investment and Inflation, With Special Reference to the Immediate Post-War Period, Canada, 1945-1948*, Department of Trade and Commerce, Ottawa, 1949, pp. 57-91 and 118-139.

<sup>2</sup> Report of the Royal Commission on Prices, Ottawa, 1949, Vol. II, p. 116.



of a certain type is to be measured, e.g., total construction activity of all types, it is only by combining expenditures on new construction with those made on repair and maintenance that the desired aggregate can be obtained. For these reasons knowledge of the extent of repair and maintenance expenditures contributes to the study of economic progress and behaviour.

The economic significance of investment is, therefore, first, that its effect is important, directly and indirectly, for the level of employment and income; secondly, that it is a major element in Canadian economic development and in improvement of the standard of living; and thirdly, that it may contribute to inflationary pressures on the price level, whether the latter are the result of war or are engendered by defence preparations. With the comprehensive investment data now available it is possible to examine the Canadian experience in these respects, and to assess the implications of investment for the different sectors of the economy. The remainder of this section is concerned with an appraisal of aggregate investment in Canada.<sup>1</sup> Sections 2 to 10 contain a more detailed analysis by individual sectors of the economy and by major geographical regions.<sup>2</sup>

### Employment and Income Effect of Investment

In 1950 new investment by private groups and public authorities combined reached \$3.8 billion, the highest peak ever achieved in Canada's history. If investment plans are any guide, a further rise in capital expenditures can be anticipated for 1951. It has been stressed in another document that there is doubt whether it will be possible to realize such further expansion in the light of competing calls for materials and men for Canada's growing defence program.<sup>3</sup> Here it may suffice to point out that new investment in 1950 accounted for 21 per cent of the gross national product. The contribution of investment outlay to national employment and income is, however, somewhat less than one-fifth because a significant portion of machinery, equipment and materials used in domestic investment is imported (see also p. 23.)

Employment and income effects of capital expenditures include more than the jobs provided and the money earned by those who contribute labour, skill,

initiative and capital to the production of capital goods and the rendering of services which go into the investment program. Employment and income are provided *directly* through on-site construction, factory production of machinery and equipment, the off-site production, distribution and transportation of raw materials and processed goods, and all the related specialized services from surveying to accounting.

Investment expenditures, therefore, affect directly many Canadians in all walks of life. In an earlier study<sup>4</sup> the *domestic* employment content of Canadian investment in 1948 was estimated at 750,000 men and women working through the full year. This estimate excludes employment created in other countries which export materials, supplies, machinery and equipment for Canada's domestic investment program. Since the physical volume of investment has risen by about 8 per cent between 1948 and 1950 the total direct employment provided in Canadian capital goods industries is likely to have exceeded 800,000 persons in 1950. The direct contribution which this group of people makes to the national income of the country would likely be of the order of \$2.3 billion, or about 16 per cent.<sup>5</sup>

In addition to the direct employment and income effects of investment, what are generally described as "secondary" effects consist of employment and income generated in consumer goods industries through the spending of wages and salaries and profits earned in the first group of industries. This means that an increase in the volume of investment may also involve an increase in consumer expenditures. As these rise, further investment may follow.

In essence, the effects of additional capital expenditures depend on the levels of employment and income already prevailing in the economy. As long as there are idle resources additional investment will mean an additional volume of employment and additional income in both investment and consumer goods industries. However, as high levels of employment of resources are approached additional investment can be achieved only by the transfer of factors of production from other sectors of the economy.<sup>6</sup> At this stage, in the absence of measures to curtail total demand, competitive bidding will exert upward pressures on prices of goods and services.

<sup>1</sup> Except where otherwise stated, aggregate investment data for the years 1949 to 1951 cover Canada including Newfoundland, while the data for the years 1926 to 1948 exclude Newfoundland. Since investment in Newfoundland in relation to total investment in Canada is small—a little over one per cent—the comparability of the series over the period under review is hardly affected. Investment data excluding Newfoundland can be obtained by deducting capital expenditures made in that province as shown in Table 116 in Part II.

<sup>2</sup> Part I of this study draws together the analytical work on investment in Canada that has been done to date. It will be noted that, while the investment data now available for study are quite comprehensive, analysis in some fields is more extensive than in others. For this reason Part I treats some industries and problems in more detail than others. Thus in essence the analysis in Part I represents a progress report of research work done up to the present.

<sup>3</sup> *Private and Public Investment in Canada, Outlook 1951*, Department of Trade and Commerce, Ottawa, 1951, p. 8. However, with the supply situation continuing to improve during 1951 and the defence program expanding at a moderate rate, the prospects for realization of investment intentions appeared to improve by the middle of the year. *Private and Public Investment in Canada, Mid-Year Survey 1951*, Department of Trade and Commerce Release, Ottawa, June 22, 1951. Because of the uncertainties of the actual realization of investment in 1951 at the time this report went to press, the analysis in Part I covers the period up to and including 1950. Data on investment intentions for 1951 as they became available at the beginning of the year are included in the tables in Part II.

<sup>4</sup> *Investment and Inflation*, p. 119.

<sup>5</sup> Another important though less direct economic effect of capital expenditures is related to the absorption in an investment program of substantial quantities of imported materials, machinery and equipment. By this means many nations exporting to Canada are enabled to purchase other commodities in ample supply in this country. Thus, for example, larger exports of British electrical equipment to Canada may enable the United Kingdom to buy increasing quantities of agricultural products from Canada.

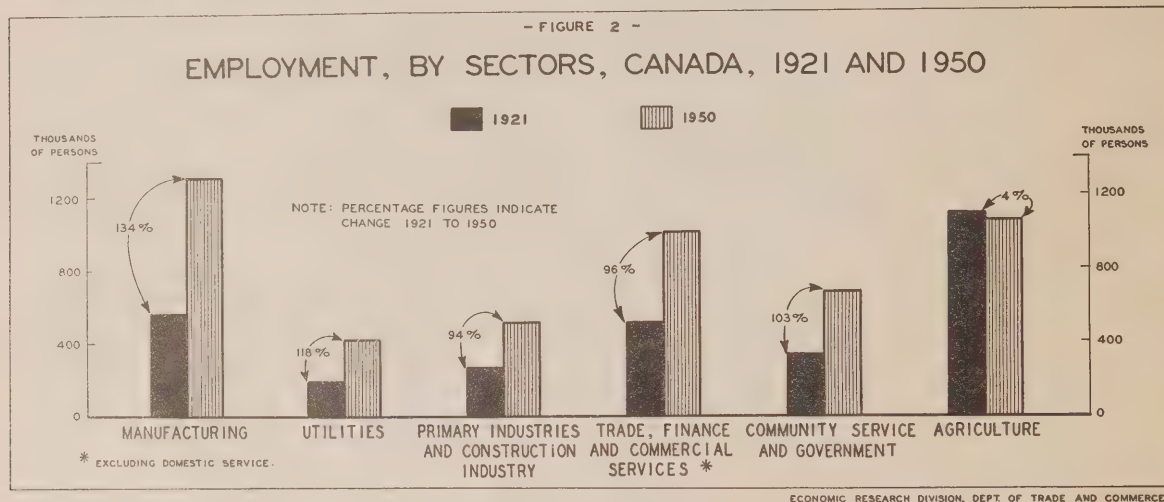
<sup>6</sup> This applies to an economy at a given time. However, as additions to the resources of a country occur, either as a result of increases in the labour force through natural population growth or immigration or because of a rise in the productive capacity of the economy, this will make further increase in investment possible without necessarily transferring resources from one sector of the economy to another.

## The Contribution of Investment to Economic Development and the Standard of Living

In the 84 years since Confederation Canada has developed from a predominantly extractive economy to a more commercialized community, and then to a highly industrialized nation. Now in the second half of the twentieth century, Canada is in the process of further strengthening and diversifying the industrial base of the economy. Manufacturing industries are today Canada's chief source of employment and income,<sup>1</sup> and are a major factor in a standard of living which approaches that of the United States and is unsurpassed by that of any other country.<sup>2</sup>

Estimates of the distribution of the civilian labour

force between 1921 and 1950 throw some light on the changing structure of the Canadian economy (see Figure 2). In 1921 agriculture was Canada's major industry, providing employment for 37 per cent of those working. Manufacturing industries and trade, finance and commercial services followed, contributing 19 and 17 per cent respectively to total civilian employment. By 1950 the situation had changed substantially. Manufacturing was in the forefront, providing jobs for 26 per cent of those employed in civilian industry, while the trade, finance and commercial service group expanded until it about equalled the number of persons working in agriculture. The last two sectors each absorbed about 20 per cent of the total employed (see below).



Year <sup>3</sup>	Civilian Employment—Thousands										
	Business					Com- munity Service and Govern- ment	Total Non- Agri- culture	Agri- culture	Total Civilian Employ- ment	Unem- ployed	Total Civilian Labour Force
	Manu- facturing	Utili- ties	Primary In- dustries <sup>4</sup>	Trade, Finance and Com- mercial Services <sup>5</sup>	Sub- total						
1921.....	562	190	262	512	1,526	335	1,861	1,107	2,968	200	3,168
1931.....	657	284	334	714	1,989	438	2,427	1,203	3,630	475	4,105
1939.....	710	252	390	847	2,199	512	2,711	1,364	4,075	523	4,598
1949 <sup>6</sup> .....	1,315	419	519	1,025	3,278	617	3,895	1,123	5,018	103	5,121
1950 <sup>6,7</sup> .....	1,314	414	509	1,003	3,240	679	3,919	1,066	4,985	133	5,118

<sup>1</sup> See below and page 13.

<sup>2</sup> The fact that the Canadian standard of living appeared to be exceeded only by that of the United States is indicated by a comparison of per capita personal expenditures on consumer goods and services for a number of industrially advanced countries. Figures available for 1948 have been converted into Canadian currency using the November 1950 exchange rates. It bears emphasis that international comparisons are of necessity approximate because of some conceptual variations and differences in the quality of estimates. However, in compiling the data the Statistical Office of the United Nations has endeavoured to reduce such differences as do exist to a minimum. The data are from *National Income Statistics of Various Countries, 1938-1948*. The following ranking is indicated: United States, \$1,269; Canada, \$783; Sweden, \$512; New Zealand, \$491; United Kingdom, \$466; Australia, \$424; and France, \$216.

<sup>3</sup> As of June each year.

<sup>4</sup> Including the construction industry.

<sup>5</sup> Excluding domestic service which is included under community service.

<sup>6</sup> Excluding Newfoundland.

<sup>7</sup> The above employment and labour force data are based on sample surveys of manpower conducted quarterly by the Dominion Bureau of Statistics. The results of these surveys are subject to a small sampling error. The data yielded by the surveys show little change in the size of the labour force between 1949 and 1950, but other information on natural population increase, immigration and emigration, and employment, (the latter from *The Employment Situation*, surveys of employment of middle-sized and large firms each employing 15 or more persons conducted monthly by the Dominion Bureau of Statistics), suggest that the labour force might have been a little larger at mid-1950 than is indicated in the table above and might have numbered close to 5.2 million.



The role of manufacturing industries as a major factor in Canadian prosperity is even more impressive in terms of contribution to the national income. By 1949 and 1950 about every third dollar of Canadian national income was earned in manufacturing industries.

In 1939 it had been one out of every four dollars. As the data below show, the position of manufacturing industries vis-à-vis other industries as the predominant source of the Canadian national income is well established.<sup>1</sup>

Year	Net National Income at Factor Cost <sup>2</sup> —Millions of Dollars										
	Business					Com- munity Service and Govern- ment	Total Non- Agri- culture	Agri- culture	Total Non- Agri- culture and Agri- culture	Net Interest and Divi- dends to Non- Residents	Net National Income at Factor Cost
	Manu- facturing	Utilities	Primary In- dustries <sup>3</sup>	Trade, Finance and Com- mercial Services <sup>4</sup>	Sub- total						
1939.....	1,202	504	582	1,188	3,476	610	4,086	536	4,622	-249	4,373
1945.....	2,723	1,081	791	2,273	6,868	2,022	8,890	1,121	10,011	-171	9,840
1949.....	3,983	1,337	1,472	3,226	10,018	1,768	11,786	1,715	13,501	-307	13,194
1950.....	4,436	1,434	1,627	3,815	11,312	1,848	13,160	1,627	14,787	-381	14,406

The advanced degree of industrialization and the high standard of private and public facilities which Canadians enjoy have in no small measure been the result of substantial capital expenditures made by the nation over the last several decades. True, outlay on new investment has fluctuated substantially, as shown below, but each period of decline has been followed by a period of even greater capital expansion.

From 1929, the pre-war peak of economic activity, to 1950, when the volume of national production in Canada reached an all-time high, Canadians invested some \$31 billion in developing natural resources, building and

equipping new plants, constructing homes, hospitals and schools, and erecting a multitude of public facilities required for the efficient functioning of the economy and the general benefit of the people. In fact, Canadians have been adding to their stock of physical capital in the post-war period at a rate hardly matched by any other industrial country.<sup>5</sup> Although on a per capita basis Canadian achievements are not as great as those of the United States, Canadians have devoted a greater proportion of their national output to new investment than their neighbours to the south, as the following figures of non-government investment indicate.

Year	New Investment in Plant, Equipment and Housing <sup>6</sup>					
	Canada			United States		
	Amount \$ Mill.	Per Capita \$	Per cent of Gross National Product	Amount \$ Mill.	Per Capita \$	Per cent of Gross National Product
1929.....	1,330	133	21.6	14,262	117	13.7
1933.....	239	22	6.7	2,925	23	5.2
1939.....	605	54	10.6	9,476	72	10.4
1945.....	986	81	8.3	11,479	82	5.3
1949.....	2,974	219	18.1	36,260	243	14.1
1950.....	3,199	231	17.7	44,529	294	15.8

<sup>1</sup> While the above figures support the general statement that manufacturing has replaced agriculture as Canada's leading industry, the varying regional significance of these two sectors of the Canadian economy should be borne in mind. On the Prairies, for example, agriculture remains the leading industry, while in Ontario and Quebec manufacturing industries are very much in the forefront. Statistics of employment and national income oversimplify the contribution by agriculture to Canadian prosperity for several reasons. First, agriculture is responsible for an important part of Canada's exports, thus enabling this country to exchange surplus food for other raw materials and fabricated commodities. Secondly, a prosperous agriculture provides an important market for Canadian manufacturing industries, which are largely dependent on domestic demand. For example, when farmers in the Prairie Provinces have a bad crop or their sales abroad are severely curtailed, resulting in reduced income, manufacturers of farm machinery, household appliances and many other goods in Ontario and Quebec are not able to continue with their large volume of sales in this region. This in turn may be followed by a reduction in activity in manufacturing industries in Ontario and Quebec.

<sup>2</sup> Industrial distribution based on preliminary data.

<sup>3</sup> Including the construction industry.

<sup>4</sup> Excluding domestic service which is included under community service.

<sup>5</sup> Although the Canadian investment program was financed largely from domestic resources, foreign investment in Canadian industry was important in particular fields. For example, out of 1,031 new medium-sized and large manufacturing enterprises commencing operations between 1946 and 1950, and employing over 41,000 people, 197 companies with 17,000 employees had their origin mainly in the United States or the United Kingdom (Department of Trade and Commerce Release, Ottawa, November 22, 1950). Heavy foreign investment in the field of natural resources development also took place. On the whole, however, Canadians continued to finance an increasing proportion of their investment from their own resources. See *Canada's International Investment Position, Selected Years 1926 to 1949*, Dominion Bureau of Statistics, Ottawa, 1950, pp. 11 ff.

<sup>6</sup> For coverage of the Canadian figures, which are from the National Accounts, see App. A. The data for the United States cover what is described in the National Accounts of that country as "new construction" and "producers' durable equipment". The United States figures therefore reflect "gross private domestic investment" minus "change in business inventories". United States data slightly overstate the actual difference between the two countries because they do not include capital expenditures of publicly owned enterprises and institutions, while the Canadian data include these (*National Income Supplement to Survey of Current Business*, United States Department of Commerce, July, 1947, p. 4, footnote 9). However, expenditures of this type are comparatively minor in the United States in relation to capital expenditures by the private sector as a whole. Another inter-country comparison is possible by adjusting United States investment data for public capital expenditures. On this basis the proportions of private and public new investment to gross national product for 1949 and 1950 are 17.5 and 19.6 per cent respectively. Comparable Canadian proportions are 21.3 per cent for each of the two years.



With expansion of capital facilities, efficiency of the Canadian labour force rose notably. From 1929 to 1950 the increase averaged about 2 per cent per year, i.e., gross national product per capita in constant (1935-1939) dollars rose by about 37 per cent in this period, and gross national product per employee in constant dollars rose by about 40 per cent. The remarkable feature of the increase in output per employee is that it was accomplished in spite of the fact that up to mid-1950—and this excludes the war years—the trend has been towards a reduction in working hours. This trend towards greater leisure for the Canadian working population is indicated by the fact that the average worker in industry (excluding agriculture) worked an

estimated 50 hours per week in 1929 and only 43 hours in 1950, a decline of 14 per cent.

Even though Canadians did not work as long hours in 1950 as at the previous peak of economic activity, they were considerably better off in terms of living standards. Personal expenditures on consumer goods and services in constant (1935-1939) dollars amounted to 511 dollars per person, or some two-fifths higher than the 371 dollars spent per person one generation earlier. The improvement was even greater if the comparison is made between 1939 and 1950, because economic conditions in the period immediately preceding World War II were less favourable than they had been in the late twenties (see below).

Item	1929	1939	1950 <sup>1</sup>	Per cent Change	
				1929-1950	1939-1950
Population—Mill.....	10.0	11.3	13.5	+ 35	+ 20
Civilian Employment—Mill.....	3.8	4.1	5.0	+ 31	+ 22
New Investment—\$ Bill.....	1.5	0.8	3.8	+149	+395
Gross National Product—\$ Bill.....	6.2	5.7	17.8	+189	+212
Per Capita Gross National Product—Constant (1935-1939) Dollars.....	534	504	730	+ 37	+ 45
Per Employee Gross National Product—Constant (1935-1939) Dollars.....	1,410	1,393	1,976	+ 40	+ 42
Personal Expenditure on Consumer Goods and Services—\$ Bill.....	4.4	3.9	11.7	+167	+201
Per Capita Personal Expenditure on Consumer Goods and Services—Constant (1935-1939) Dollars.....	371	335	511	+ 38	+ 53
Average Hours Worked in Non-Agricultural Industries.....	50	48	43	- 14	- 10

<sup>1</sup> Excluding Newfoundland.

### Investment and General Prosperity

It is an accepted maxim in Canadian economic thinking that domestic prosperity is closely linked with the ability of this country to exchange her surpluses of raw materials and processed and manufactured goods for other products she requires. But it is only recently, as a result of greater knowledge about the meaning and economic impact of investment, that both exports and capital expenditures have come to be considered twin pillars of Canadian prosperity.

Canadian experience indicates that both private and public investment have been among the most unstable elements in the economy. Capital expenditures have fluctuated more substantially than exports, government outlays on current goods and services, or consumer expenditures. Accompanying these wide fluctuations of investment there have been substantial variations in the number of people employed, the income they earned and the volume of goods and services which the nation as a whole turned out (see below).

Year	New Investment		Exports		Gross National Product	
	Current Dollars \$ Mill.	Constant Dollars \$ Mill.	Current Dollars \$ Mill.	Constant Dollars \$ Mill.	Current Dollars \$ Mill.	Constant Dollars \$ Mill.
1926.....	917	856	1,261	845	5,294	4,659
1929.....	1,518	1,373	1,152	846	6,166	5,359
1933.....	327	352	529	621	3,552	3,800
1937.....	828	790	997	871	5,355	5,190
1939.....	765	746	925	957	5,707	5,675
1949.....	3,502	1,662	2,993	1,354	16,462	9,431
1950.....	3,823	1,704	3,118	1,340	18,029	9,955

From 1929 to 1933 the *volume* of new investment declined by about three-quarters, the *volume* of exports by about one-quarter, and total output of the nation by close to one-third. In the subsequent period of recovery from 1933 to 1937 the volume of new investment more than doubled, exports rose by nearly one-half and gross national product by more than one-third. There was little change between 1937 and 1939, and what change

occurred suggests a moderate decline in investment and a moderate increase in exports and the nation's output. The most remarkable increase occurred between 1939 and 1950. Again the volume of new investment more than doubled. The rise in the volume of exports was much more moderate, close to one-half, while gross national product in constant dollar terms rose by three-quarters (see below).

Period	Per cent Change					
	New Investment		Exports		Gross National Product	
	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars
1926-1929.....	+ 66	+ 60	- 9	0	+ 16	+ 15
1929-1933.....	- 78	- 74	- 54	- 27	- 42	- 29
1933-1937.....	+153	+124	+ 88	+ 40	+ 51	+ 37
1937-1939.....	- 8	- 6	- 7	+ 10	+ 7	+ 9
1939-1950.....	+400	+128	+237	+ 40	+216	+ 75

Volume change in investment and exports is only one aspect of the contribution of these two flows to economic instability. Another important factor is the great fluctuation in the price of staple commodities largely marketed abroad. Such price fluctuations may on occasion be greater than variations in the volume of exports. As a result domestic incomes, consumer expenditures and employment also fluctuate, and all these factors in turn affect further investment. Thus it is important to bear in mind that exports and investment cannot be considered separate and distinct from each other. In fact, conditions in the main export industries, e.g., those producing wheat, fish, pulp and paper, lumber and mineral products, affect the general economic climate, which in turn influences business sentiment about future prospects and investment decisions based on them.

### Investment and the General Price Level

The impact of investment on prices has been examined exhaustively in another investigation.<sup>1</sup> As

noted above, the main effect of capital expenditures on prices will take place in periods of full or nearly full use of resources. The record of Canadian experience indicates that at such times price increases in capital goods far exceeded those in consumer goods. From 1939 to 1950 prices of capital goods rose by 117 per cent in overall terms,<sup>2</sup> while those of consumer goods and services increased by 74 per cent. However, in the same period prices of goods exported rose by 140 per cent and of commodities imported by 139 per cent. This suggests that an important element in Canada's rising price situation in the post-war years has been the transmission of price increases that took place outside Canada's borders. The result of these diverse price factors has been a rise of 79 per cent in the general price level. This is reflected in the dollar increase in the gross national product after allowing for the volume increase that took place during that period (see below).

Year	Price Indices <sup>3</sup>				
	Investment	Exports	Imports	Consumer Goods and Services	Gross National Product
1929.....	111	136	129	119	115
1933.....	93	85	92	93	93
1939.....	103	97	99	102	100
1946.....	155	172	164	131	131
1949.....	211	221	221	171	173
1950.....	224	233	237	178	179

<sup>1</sup> *Report of the Royal Commission on Prices*, Vol. II, pp. 115-142.

<sup>2</sup> This is a weighted average of a rise of construction costs of 130 per cent and of machinery and equipment costs of 100 per cent between 1939 and 1950.

<sup>3</sup> Base: 1935-39 = 100.

So far this appraisal has been concerned with the relationship of aggregate investment to the economy as a whole. It would be misleading, however, to assume that investment itself is a homogeneous aggregate and the result of similar decisions in all parts of the economy. The opposite is true. As the structure of the economy changes some industries will increase in importance while others will decline. The ratio of private to public ownership of enterprises will vary from time to time, as will the considerations that lead to investment decisions by business and government. Technological advances will be more rapid in one period than in another. New industries will spring up, partly the result of innovations and discoveries and partly because of the creation of new consumer wants, capital needs and defence requirements. Changes of prices of capital goods, rapid at one time and unimportant at other times, should also be taken into account in making comparisons of investment in real terms over a period of years.

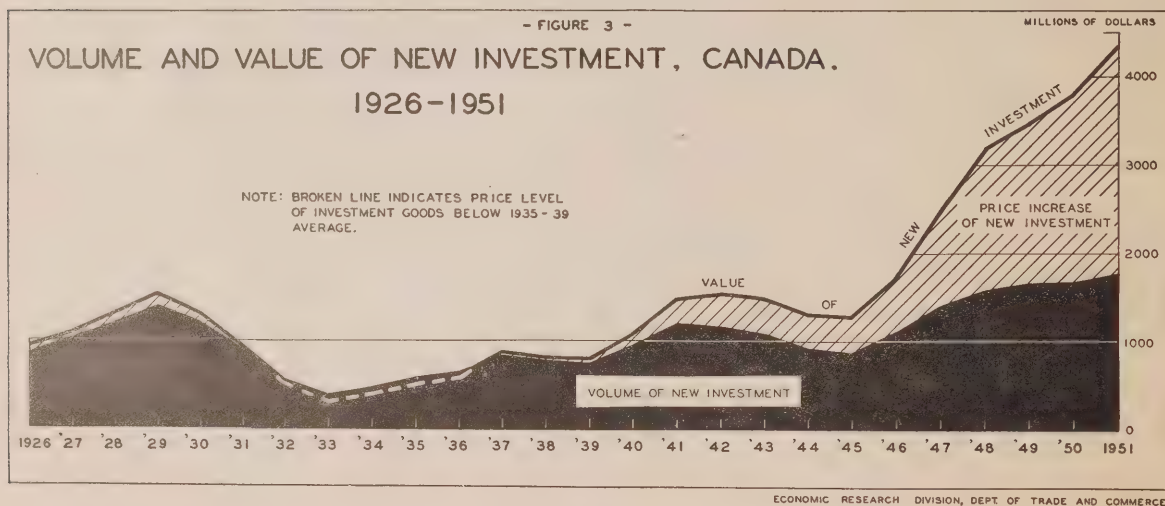
The remainder of this chapter, therefore, is devoted to an assessment of the historical record of investment in both value and volume terms, and covering the aggregate as well as the major components. Supporting statistical evidence will be found in Tables 1 to 17 in Part II.

## Value and Volume Changes in Investment

As far as records are available, the amount of capital expenditures made between 1945 and 1950 was not matched at any previous time in Canada's history.<sup>1</sup> This expansion of investment is generally described as Canada's greatest investment boom. Is this true? The answer is, yes—in terms of dollar expenditures and volume of work put in place.<sup>2</sup> But it is not true of the per capita volume of capital expenditures, nor of the volume of capital expenditures in relation to the nation's total output.

A comparison is made below between 1929 and 1950. These two years have been chosen because they represent periods of full employment, under reasonable peacetime conditions, in which rearmament programs did not play an important part.<sup>3</sup>

Total new investment of \$3.8 billion in 1950 was more than double that recorded in 1929. But since prices of capital goods in this 21-year period also rose notably the *volume* of new investment has risen by only about one-quarter (see Figure 3).



Large as these capital expenditures are, in both value and volume terms, they have to be seen against the background of an expanding Canadian economy. Between 1929 and 1950 Canada's population rose by 35 per cent and her civilian labour force by 31 per cent.<sup>3</sup> The per capita volume of new investment in Canada was \$137 in 1929, or 11 per cent more than the \$123

indicated for 1950. In the latter year capital expenditures in current dollar terms comprised 21 per cent of the gross national product, but because prices of capital goods had risen more rapidly than those of most other goods and services, this represented only 17 per cent in constant dollar terms. These ratios are smaller than the corresponding proportions for 1929 (see below).

<sup>1</sup> The statistical problems in making both current and real estimates of investment are discussed in detail in Appendix B. In some cases the quality of the data available warrant only tentative conclusions.

<sup>2</sup> For a summary of dissimilarities between prosperity in the late twenties and in the early post-World War II period, see *Investment and Inflation*, p. 50.

<sup>3</sup> These and subsequent figures in this section exclude Newfoundland.



Item	1929	1933	1939	1950	Per cent Change	
					1929-1950	1939-1950
New Investment in <i>Current</i> Dollars—						
\$ Mill.....	1,518	327	765	3,823	+152	+400
Per Capita—\$......	152	31	68	277	+ 82	+307
Per cent of Gross National Product.....	25	9	13	21	— 16	+ 62
New Investment in <i>Constant</i> (1935-39) Dollars—						
\$ Mill.....	1,373	352	746	1,704	+ 24	+128
Per Capita—\$......	137	33	66	123	— 10	+ 86
Per cent of Gross National Product.....	26	9	13	17	— 35	+ 31

It therefore appears that, if the growth of the economy is taken into account in terms both of the working force and of its ability to turn out more goods with less labour, Canada's post-war investment boom does not match the achievements of the late twenties. The figures indicate the tremendous investment efforts that took place in the earlier period, and are a reflection of the feeling of buoyancy and confidence that permeated the American and Canadian economies in the latter half of the twenties, leading to widespread stock market speculation and over-expansion of industrial capacity.

The fact remains that in absolute terms the value and volume of investment undertaken in the post-war period were the largest on record. What may justify the description of this program as an "investment boom" is the rapid rate of capital expansion during the period. Accompanied by strong competition from other sectors of the economy for materials and labour, this led to bottlenecks, rising profits and upward pressure on prices. The rapid rate of acceleration in the immediate post-war period is indicated by the fact that new investment rose between 1946 and 1949 by 51 per cent in volume terms and 106 per cent in value terms. During the pre-war period of high prosperity, 1926 to 1929, the volume of new investment rose by about 60 per cent and the value by about 66 per cent. Since competition for limited resources from other sectors of the economy was not as great in the earlier period, capital expansion could be carried out without the strong pressure on prices experienced in the immediate post-war years.

Investment underwent significant changes both before and after the 1929 peak. Fluctuations in the various components of investment in the more recent period are examined separately below.

### Private and Public Investment

Private new investment, that is, capital expenditures on plant, equipment, housing and institutional buildings, amounted to \$2.8 billion in 1950, or 74 per cent of total capital expenditures. The remaining \$1 billion consisted of investment outlay by government departments, usually described as public works, and capital expenditures by government-owned enterprises, e.g., public utilities and Crown companies engaged in business

operations; by government-operated institutions, e.g., hospitals and sanatoria; and on government-sponsored housing. The importance of private investment in total investment, however, has varied over the years as capital expenditures by business and individuals fluctuated more than the corresponding outlay by public authorities (see below).

Year	New Private Investment	
	Amount \$ Mill.	Per cent of Total New Investment
1929.....	1,176	77
1933.....	217	66
1939.....	547	72
1945.....	922	72
1949.....	2,559	73
1950.....	2,830	74

Private investment reached a pre-war peak in 1929, public investment in 1930. Both sectors recorded the lowest inter-war point in 1933. The drop from the preceding peaks was 77 and 70 per cent respectively.<sup>1</sup> Both series show high points in 1937, private investment reached a low point in 1938 and public investment in 1939. But even in 1937, when recovery following the depression of the early thirties was well under way, private and public capital expenditures were both considerably below the levels of the late twenties.

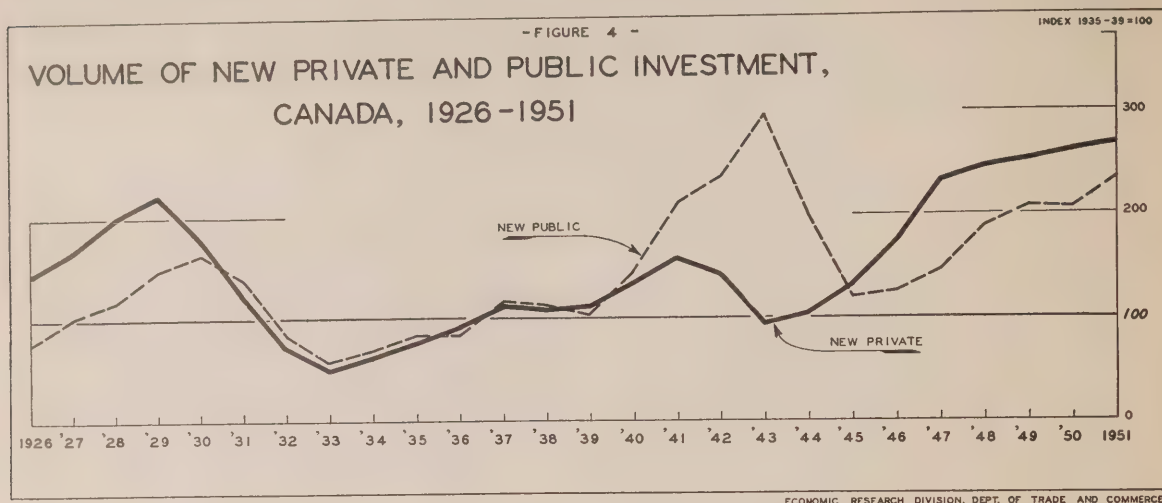
During World War II private investment declined in importance as government-financed munition plant expansion and military defence installations absorbed a great deal of the resources of Canadian capital goods industries, and manpower and materials were diverted to the direct pursuit of the war.

In the post-war period private investment rose more rapidly than public investment, which receded from its World War II high. The Federal Government in particular kept its own investment expenditures to a minimum in the post-war years to allow private industry

<sup>1</sup> These percentages relate to 1929-1933 for private investment and 1930-1933 for public investment.

and individuals to proceed with their capital expansion plans as rapidly as possible. Only in 1949 and 1950, when supplies of capital goods became more plentiful, did public investment increase more significantly (see Sections 7-9). Towards the end of 1950, however, as

defence requirements made added demands on the already fully employed resources of the country, the Federal Government's attitude towards its own investment program became once again one of strict retrenchment.<sup>1</sup>



A brief summary of the fluctuations of private and public investment in volume terms from 1926 to 1950 is shown below (see also Figure 4).

Period	Per cent Change of New Investment in Constant (1935-39) Dollars	
	Private	Public
1926-29.....	+ 53	+ 94
1929-33.....	- 78	- 61
1933-37.....	+137	+100
1937-39.....	- 3	- 11
1939-50.....	+139	+101

Among the three levels of government, including all the enterprises and agencies they control, capital expenditures by municipalities have shown greater stability than those of either the Federal or provincial governments (see below). Federal Government capital expenditures reached a peak in 1929, while provincial and municipal governments recorded a high point one year later. The decline to a low point in 1933 was shared by both the Federal and provincial governments, with municipal investment reaching a trough in 1934.

In the case of the Federal Government, the turning point came in 1929, mainly because of substantial capital expenditures being made by the Canadian National Railways in that year, accompanied by large investment outlay by Federal Government departments. The latter reached a high point in 1930 with the near completion of such large projects as the Hudson Bay Railway and the Welland Canal. While public

investment by Federal Government agencies as a whole turned in 1929, the turning point of provincial and municipal capital expenditures came in 1930. The reason was mainly that large road building projects and an urban improvement program undertaken by provincial and municipal governments did not come to a stop in 1929, when business conditions turned downward. The impetus of these programs carried them over into 1930 and was responsible for investment at the provincial and municipal levels in that year exceeding that of 1929.

As the financial situation of provincial and municipal governments became more precarious after 1930 capital outlay by these governments declined notably. These declines were offset to some extent by the relief works which were undertaken in the thirties and which were in part financed by the Federal Government, either directly or through grants to the provinces and municipalities. However, works of this type proved insufficient to compensate for the rapid decline from the 1930 levels of expenditures on resources development and normal types of construction.

By the middle thirties relief works projects were assuming greater importance. Provincial investment expenditures reached a temporary peak in 1937, municipal in 1938. Federal Government investment expenditures rose continuously in the latter half of the thirties and with the outbreak of World War II assumed particular importance because of the Government's contribution to the creation of the wartime industrial structure.<sup>2</sup>

The most remarkable feature of the role of the three levels of government in investment has been the fact that, except in war periods, provincial and municipal

<sup>1</sup> See p. 100.

<sup>2</sup> For a summary of the Federal Government's expenditures on direct war investment see Appendix D.

governments in recent decades have assumed greater importance than the Federal Government. This is a reversal of the situation that prevailed from Confedera-

tion to about World War I. More recent data on the changing role of governments in the investment field are shown below.

Year	New Investment by All Govern- ment Agencies Current Dollars \$ Mill.	Per cent of New Investment by All Government Agencies		
		Federal Government	Provincial Governments	Municipal Governments
1926.....	170	42	24	34
1929.....	342	48	26	26
1933.....	110	32	31	37
1939.....	218	34	42	24
1949.....	943	32	42	26
1950.....	993	32	41	27

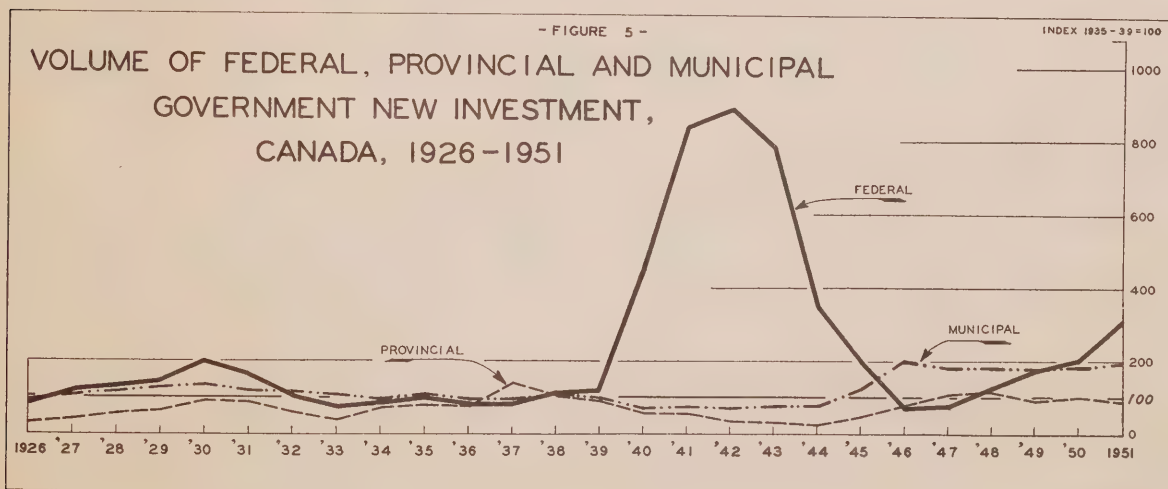
The declining importance of direct Federal Government investment in relation to total public investment is discussed in some detail in Sections 7 and 8. Here it may be noted that the Federal Government in recent decades, except in periods of war or rapid rearmament, placed greatest emphasis on encouraging and assisting investment by other governments and by private enterprise. Except for defence investment the Federal Government has been stressing its residual role in the field of public investment, undertaking projects either required for the efficient performance of its own functions or which, while in the national interest, were not being initiated by other governments, private business, or individuals (see Figure 5).

Expenditures on new investment by all three levels of government have on the whole risen less rapidly than expenditures on other functions, particularly those of a social and welfare character. As a result public capital outlay now represents a somewhat smaller proportion of government expenditures than it did formerly. This is more appropriately indicated by comparing capital

expenditures with total government expenditures on both current and capital account<sup>1</sup> (see below).

Year	New Investment and Repair and Maintenance, All Govern- ments, in Current Dollars as a Per cent of	
	Total Expenditures on Goods and Services	Total Expenditures on Current and Capital Ac- count
1926.....	32	23
1929.....	40	31
1933.....	27	14
1937.....	38	20
1939.....	33	— <sup>1</sup>
1948.....	37	19
1950.....	34	17

<sup>1</sup> Not available.



<sup>1</sup> That is, including transfer payments to the private sector which are excluded from figures on government expenditures on goods and services.



Within the public investment sector government enterprises appear to represent the more unstable element (see below). This is in part explained by the fact that such enterprises are frequently guided by considerations similar to those influencing business enterprises. For example, the investment policy of a publicly owned utility corporation may on occasion differ little from similar policies pursued by a privately owned corporation, unless the publicly owned utility enterprise faces overriding considerations, e.g., requests from governments for expansion or contraction, as the case

may be. The role of government enterprise as a factor in public investment is examined in greater detail in Sections 7 to 9.

Among the different sectors of private investment, capital expenditures by business enterprises have proven the most unstable. They comprised 61 per cent of total investment in 1929, but only 41 per cent in 1933 and 46 per cent in 1939. By 1950 they had again increased proportionately and comprised 53 per cent of the nation's total investment program (see below).

Sector	Per cent Distribution of New Investment in Constant (1935-39) Dollars			
	1929	1933	1939	1950
<i>Private New Investment</i>				
Business.....	61	41	46	53
Institutions.....	1	1	2	2
Housing.....	16	24	24	20
Sub-total.....	78	66	72	75
<i>Public New Investment</i>				
Government-Owned Enterprises.....	10	6	7	9
Government-Operated Institutions and Housing.....	2	3	2	4
Government Departments.....	10	25	19	12
Sub-total.....	22	34	28	25
Total.....	100	100	100	100

### Business and Other Investment

So far capital expenditures have been examined on the basis of ownership or dominant control. Another common distinction is between "business" and "other" investment.

Business investment represents total capital expenditures made by business enterprises, whether incorporated or not, and including government-owned corporations. It covers primary industries, the construction industry, manufacturing, public utilities, trade, finance and commercial services. "Other" investment covers capital expenditures made on institutional buildings and equipment, on housing, and by government departments.

Business investment, whether by privately or publicly owned enterprises, has fluctuated more substantially than all other types of investment. Capital expenditures by government departments, which include outlay on relief works<sup>1</sup> made in the thirties, never fell as much as those of most other sectors (see below).

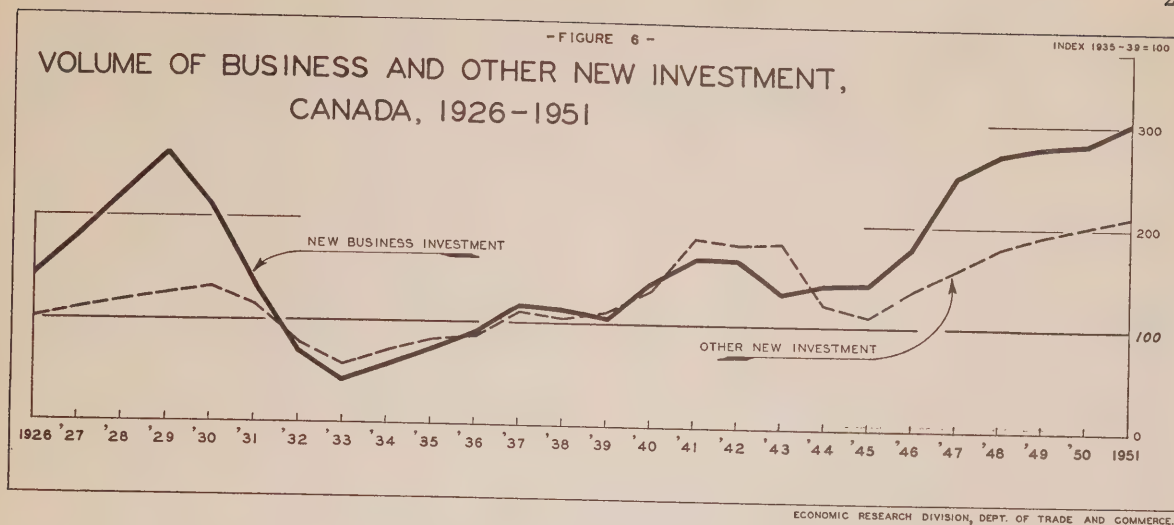
The most unstable component of the business sector was manufacturing. This group of enterprises recorded a decline in the volume of new investment of 87 per cent from 1929 to 1933, as compared with 83 per cent for the business group as a whole. In the "other" investment sector, institutions proved to be the most unstable

Period	Per cent Change of New Investment in Constant (1935-39) Dollars	
	Business	Other
1926-29.....	+ 81	+ 25
1929-33.....	- 83	- 53
1933-37.....	+163	+ 90
1937-39.....	- 10	- 1
1939-50.....	+166	+ 85

element. They recorded a decline in capital expenditures of 80 per cent from a peak in 1930 to a low in 1934, as compared with 49 per cent for the remainder of the "other" investment sector, which reached a low point a year earlier (see Figure 6).

In the post-war period manufacturing investment reached a peak in volume terms in 1947 (1948 in value terms), not matched in any subsequent year (see Tables 11 and 12 in Part II). It is interesting to note that the post-war peak of manufacturing investment only approached but never reached the high volume level of 1929. The expansion, however, of other industries,

<sup>1</sup> For an appraisal of the impact of government relief works on the investment program of the thirties see Appendix C.



such as primary industries, the construction industry and public utilities, differs from that of manufacturing in that their post-war achievements exceeded those of the late twenties or indeed of any other period in Canadian economic development.

With each investment sector undergoing fluctuations which differ in extent and timing, it is not surprising to find that the contributions of the various groups of enterprises to the Canadian investment total vary considerably over time (see below).

Sector	Per cent Distribution of New Investment in Constant (1935-39) Dollars			
	1929	1933	1939	1950
<i>Business New Investment</i>				
Primary Industries and Construction Industry.....	15	11	16	19
Manufacturing.....	25	13	13	14
Utilities.....	23	17	16	19
Trade, Finance and Commercial Services.....	8	6	8	10
Sub-total.....	71	47	53	62
<i>Other New Investment</i>				
Housing.....	16	24	24	21
Institutions.....	3	5	4	5
Government Departments.....	10	24	19	12
Sub-total.....	29	53	47	38
Total.....	100	100	100	100

### Construction and Machinery and Equipment

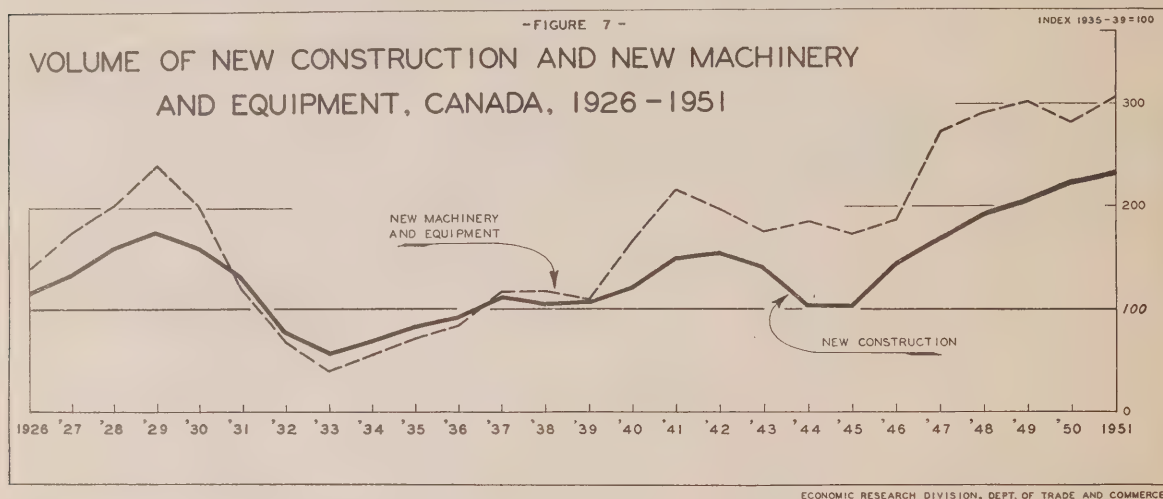
Expenditures on new construction, major improvements and alterations in 1950 involved \$2.4 billion, or about three-fifths of total investment in durable physical assets. The remaining \$1.4 billion represent outlay for the purchase of machinery and equipment, both domestically produced and imported. Both components of investment have varied widely over the 25-year period under review. Fluctuations in machinery and equipment were more substantial than those in construction. This is particularly notable when considering changes in volume. The decline in construction

from 1929 to 1933 was 68 per cent and in machinery and equipment 83 per cent. In 1950 construction expenditures were 112 per cent above the volume of 1939, while machinery and equipment purchases were up 156 per cent (see below). In part the greater fluctuations of machinery and equipment purchases reflect the substantial variations in capital expenditures made by the business community. In construction, however, a good proportion of the volume represents contracts awarded by governments whose capital expenditures, as stated earlier, usually do not fluctuate as widely as similar outlay by the business community (see Figure 7).

Period	Per cent Change of New Private and Public Investment in Constant (1935-39) Dollars	
	Construction	Machinery and Equipment
1926-29.....	+ 53	+ 71
1929-33.....	- 68	- 83
1933-37.....	+100	+187
1937-39.....	- 6	- 5
1939-50.....	+112	+156

Between thirty and forty per cent of new construction is usually made up of engineering works. The remainder is composed of building construction. At times housing is the more important contributor to new building construction, as was the case, for example, in the immediate post-World War II period. At other times, such as the late twenties, factory, commercial, institutional and public building provides the bulk of business for the building industry (see below).

Construction work in Canada for the most part means jobs and incomes for Canadians, since most of the building materials are domestically produced and on-site construction operations employ mainly local labour. As far as machinery and equipment are concerned, imports of completed items and parts represent a significant portion of total Canadian expenditures. It is significant



Year	New Construction Amount \$ Mill.	Per cent of New Construction			
		Housing	Other Building	Total Building	Engineering
1929.....	898	28	38	66	34
1933.....	232	33	26	59	41
1939.....	486	38	28	66	34
1949.....	2,124	37	33	70	30
1950.....	2,390	35	33	68	32

that in spite of the substantial growth and diversification of Canadian manufacturing industries, as elaborated in Section 3, the import content of Canadian purchases of machinery and equipment has been increasing notably over the last several decades. It was about one-fifth in 1929 and was up to about one-third in 1950 (see below), this in spite of the fact that, as a result of World War II expansion, Canada has many and varied machinery and tool-making industries. Among the reasons for the growing dependence on imports of capital equipment, mainly from the United States, is the rapid rate at

which Canadian industry is mechanizing its plants. This process requires large quantities of special purpose machinery, frequently only available in the United States. In that country experimentation and research can more easily be followed by mass production because of the potentially large domestic market for new types of machinery and equipment. Canadian industry therefore often finds it advantageous to draw on United States sources for specialized types of machinery and equipment where these are not available domestically at competitive prices.



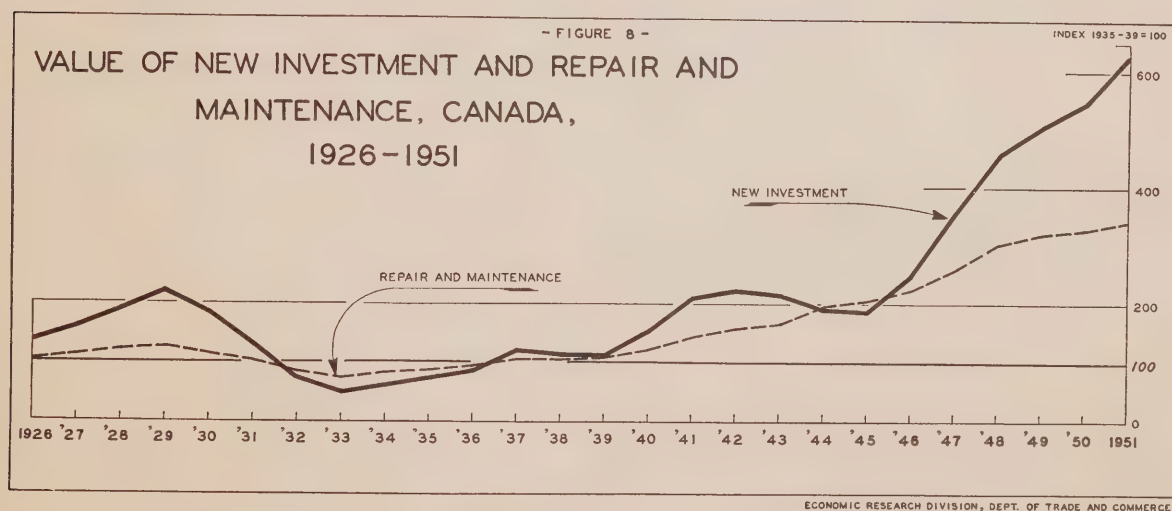
Year	Canadian Purchases of Machinery and Equipment \$ Mill.	Value of Imported Machinery and Equipment f.o.b. Border \$ Mill.	Imports as Per cent of Total Canadian Purchases	
			From United States	From All Countries
1929.....	620	132	19	21
1933.....	95	19	14	19
1939.....	279	77	24	28
1949.....	1,378	455	31	33
1950.....	1,433	459	28	32

### New Investment and Repair and Maintenance

In 1950 new investment amounted to \$3.8 billion and repair and maintenance expenditures to about \$1.6 billion. Thus Canadians spent a total of \$5.4 billion on the expansion, improvement, replacement, repair and maintenance of the physical capital of the country. This exceeds the amount that Canadians spent directly for the prosecution of the war in the peak year of the military effort in World War II. The comparison not only indicates the dimensions of Canadian investment efforts but also suggests another important factor. Investment expenditures, particularly those made by the private sector of the economy, have largely taken the place of military expenditures made during the last war. As long as these capital expenditures remain high—and they have ever since the end of World War II—there is little reason to anticipate any significant decline of levels of employment and income, even though exports showed signs of weakening in the later post-war period.<sup>1</sup> However, had a decline in exports persisted long enough, this in turn would have affected adversely the volume of investment in Canada (see p. 10).

It was pointed out earlier that new investment expenditures underwent greater fluctuations than repair and maintenance outlays (see Figure 8). This is indicated by the following figures, which also show that repair and maintenance expenditures may themselves fluctuate significantly from time to time because of the possibility of postponing some of the work involved.

Period	Per cent Change—Current Dollars	
	New Investment	Repair and Maintenance
1926-29.....	+ 66	+ 21
1929-33.....	- 78	- 41
1933-37.....	+153	+ 43
1937-39.....	- 8	+ 4
1939-50.....	+400	+200



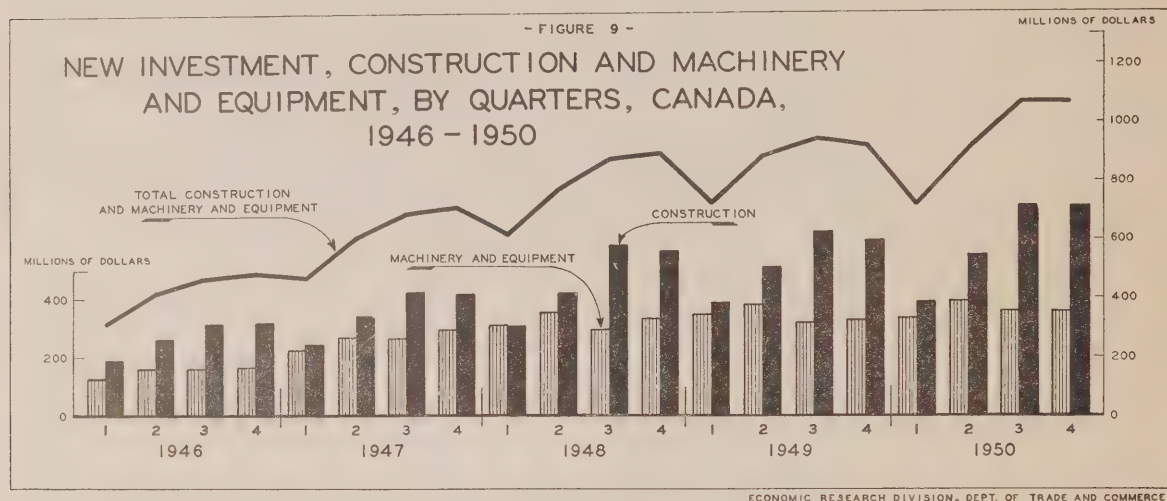
<sup>1</sup> Partly because foreign exchange difficulties forced many of Canada's overseas customers to curtail purchases from this country (see Table 1 in Part II).

## Investment Data by Quarters

It would aid greatly in interpreting investment fluctuations if, besides annual data, comprehensive monthly and quarterly figures were available for the period reviewed in this report, for time lags of less than one year's duration, which are more numerous than those of longer duration, cannot be detected from annual data.

Quarterly data compiled for the period 1946 to 1950 are shown in Table 16 in Part II. Available information indicates that construction of all types usually experiences a seasonal peak in the third quarter of the year.

Machinery and equipment purchases are likely to bulk more heavily in the second quarter (see Figure 9). However, the seasonal pattern will vary within the construction sector. For example, residential construction work put in place is more likely to be concentrated in the last quarter as most builders attempt to complete as many houses as possible before winter. Further, a great deal of interior construction work can be undertaken after a house has reached the closed-in stage. In engineering construction, on the other hand, where most of the work is done outdoors, severe winter weather may be more important in retarding work.



## Reconciliation of Total Investment and Partial Investment

The series on new investment used in this report includes, as stated earlier, all investment by private groups and public authorities. Its coverage is therefore somewhat greater than the series "Plant, Equipment and Housing" included as a component of gross national expenditures in the National Accounts, published regularly by the Dominion Bureau of Statistics. The latter series excludes capital outlay made by government departments and certain public expenditures on housing. This type of outlay is included under "Government Expenditures on Goods and Services" in the National Accounts. As Table 17 in Part II shows, the plant, equipment and housing series covers currently about 85 per cent of total new investment.

## Net Investment

So far the appraisal has been in terms of the total additions to the capital stock in the country. At the same time as expenditures on new construction, machinery and equipment add to the stock of physical capital, the latter is also being used up. Physical capital may be either destroyed by accident or demolished by design,

or may lose its value by the sheer passing of time or by continuous use. This using-up of capital is commonly described as "capital consumption". The latter may be defined and measured in physical terms to reflect the actual wear and tear, or it may be represented by depreciation and other allowances, which reflect accounting and business practice in writing off capital assets.

Data on capital consumption in physical terms comparable with the data on capital formation or new investment contained in this report are not available for the economy as a whole. Partial estimates covering the housing sector are contained in another study.<sup>1</sup> However, in conjunction with the preparation of estimates of the gross national product, the Dominion Bureau of Statistics compiles a series called "Depreciation and Other Business Allowances" which reflects an accounting or business concept of capital consumption. This series is conceptually comparable to the series on "Plant, Equipment and Housing" shown under gross national expenditures in the National Accounts. The data summarized below indicate the fact that only a portion of total investment expenditures adds to the stock of capital, since a large portion is required to replace capital used up with the passing of time and worn out through use of the assets involved.

<sup>1</sup> Firestone, O. J., *Residential Real Estate in Canada*, Toronto, University of Toronto Press, 1951, Section 3.

Year	Private and Public New Investment \$ Mill.	Investment in Plant, Equipment and Housing <sup>1</sup> \$ Mill.	Deprecia- tion and Similar Business Costs <sup>1</sup> \$ Mill.
1929.....	1,518	1,330	709
1933.....	327	239	547
1939.....	765	605	610
1949.....	3,502	2,974	1,437
1950.....	3,823	3,199	1,614

<sup>1</sup> As per National Accounts.

## SECTION 2. INVESTMENT IN PRIMARY INDUSTRIES AND CONSTRUCTION INDUSTRY

### Changing Structure of Canadian Economy

Although Canada has passed the stage at which primary industries and the construction industry were its major sources of employment and income, this group of industries continues to occupy an important place in the economy.<sup>1</sup> The extractive industries make available a continuous flow of food and basic materials essential to an industrial nation. Primary industries also provide exportable surpluses with which to purchase goods and services from other countries. The construction industry, in turn, performs the important function of helping to build the capital facilities that are a necessary accompaniment of industrial progress and a high standard of living.

The chief primary industries are agriculture, fishing, woods operations and mining. Employment provided by all primary industries and the construction industry was responsible for 32 per cent of all the civilian jobs in 1950, 21 per cent consisting of persons working in agriculture and 11 per cent representing those engaged in fishing, woods and mining operations and construction. In other words, one out of every three persons working in Canada was active in primary industries or the construction industry. The declining importance of this group of industries as a field of employment is indicated by the fact that three decades earlier it employed two out of every five persons working (see below).

Year	Primary Industries and Construction Industry— Employment	
	Number Thous.	Per cent of Total Civilian Employment
1921.....	1,369	46
1931.....	1,537	42
1939.....	1,754	43
1949.....	1,642	33
1950.....	1,575	32

<sup>1</sup> The comparative growth of manufacturing and agriculture over the last several decades, discussed in Section 3, illustrates the changing pattern of Canada's industrial structure. Here it may suffice to note that manufacturing provides about 26 per cent of total civilian employment, against 21 per cent for agriculture. In terms of contribution to national income, the former is responsible for 31 per cent and the latter for 11 per cent. This was the situation in 1950. Manufacturing industries contribute a higher proportion of both employment and national income at a time of great military efforts. Such was the case at the peak of the industrial war effort during 1943 and 1944 and would again be the case in a period of rearmament such as followed international developments of 1950.

In periods of low levels of economic activity such as prevailed in 1933, new investment may not be sufficient to keep up with the rate at which existing capital is used up. In that case net investment becomes a negative quantity indicating that the capital stock of the country is diminishing or, as the economist describes it, "disinvestment" takes place. In periods of intermediate levels of employment and income with still sizeable resources unused, such as for example in 1939, new investment may be barely sufficient to keep pace with the rate at which the stock of capital is used up. It is only in prosperous periods like the late twenties and the post-war years that sizeable net additions to the country's capital stock take place.

Accompanying the relative decline in employment, the contribution to total national income by primary industries and the construction industry has also fallen. In 1950 this group of industries contributed 23 per cent of total national income at factor cost, as against 26 per cent in 1939. However, since total national income rose considerably in this decade, national income originating in these industries rose about three-fold, exceeding \$3 billion in 1950 (see below).

Year	Primary Industries and Construction Industry— National Income <sup>1</sup>	
	\$ Mill.	Per cent of Total National Income
1939.....	1,118	26
1949.....	3,187	24
1950.....	3,254	23

<sup>1</sup> At factor cost.

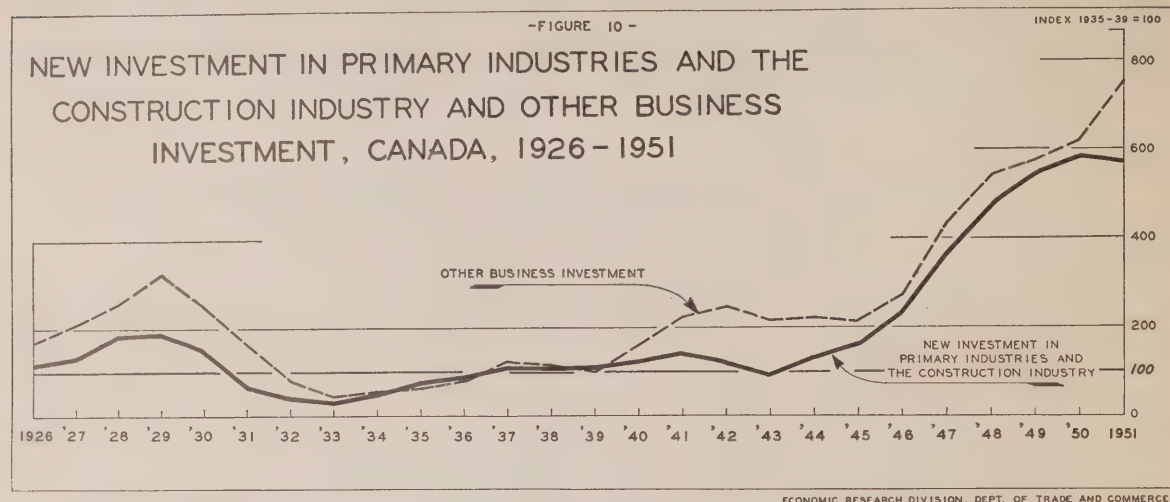
### Levels and Changes of Investment

Investment in primary industries and the construction industry in the post-war period varied between 15 and 18 per cent of total new private and public investment in Canada. The bulk of the capital outlay, 63 per cent, was made by agriculture. Primary mining industries were responsible for another 20 per cent, while the remainder was contributed by the construction industry, 9 per cent, primary woods operations, 5 per cent, and the fishing industry, 3 per cent. Except at the bottom of the depression, in the early thirties, this distribution within the primary group has changed little. The total capital expenditure made by this group of industries has fluctuated substantially over the 25 years for which estimates are provided in this report. An increase of two-thirds from 1926 to 1929 was followed by a decline



of over four-fifths from 1929 to 1933. In the period of revival from 1933 to 1937 the increase was over 200 per cent, but the highest level reached was still substantially below that of 1929. In spite of the recession in 1938 investment in these industries rose further, with a moderate decline occurring in 1939. Then followed a rapid expansion, involving over 400 per cent increase between

1939 and 1950 (see below). Even if allowance is made for a doubling in capital costs, the increase was the most protracted rise recorded. Notable as were the annual changes in the amounts spent on capital goods, investment by business enterprises other than primary industries and the construction industry showed even greater variations (see Figure 10).



Year	Primary Industries and Construction Industry— New Investment					
	\$ Mill.	Per cent				
		Agriculture	Fishing Industry	Primary Woods Operations	Primary Mining Industries	Construction Industry
1926.....	134.9	66	6	4	13	11
1929.....	215.4	56	4	3	22	15
1933.....	37.4	51	15	6	23	5
1937.....	128.8	57	4	4	26	9
1939.....	125.5	59	4	4	24	9
1949.....	622.2	64	3	4	20	9
1950.....	668.4	63	3	5	20	9

Because of the great need for machinery and equipment to improve the efficiency of both primary industries and the construction industry, expenditures for this purpose are by far the most important factor in capital outlay made by this group of entrepreneurs. In 1950, for example, three out of every four dollars of new investment went into the purchase of new machinery and equipment. Over most of the last 25 years outlay on new machinery and equipment has fluctuated somewhat more than expenditures on new structures and installations (see below).

Period	Primary Industries and Construction Industry— Per cent Change	
	New Construction	Machinery and Equipment
1926-1929.....	+ 65	+ 58
1929-1933.....	- 81	- 83
1933-1937.....	+217	+255
1937-1939.....	- 3	- 3
1939-1950.....	+355	+459

It should be remembered that the industries included in this group cover a diverse set of business enterprises, operating at varying stages of industrial advancement, catering to different markets and dependent to differing degrees on the vagaries of sales abroad and of such unknown factors as the effects of the weather. For example, in the prosperous period of the late twenties exports of raw materials produced by primary industries before processing amounted to more than one-third of the gross value of production of these industries. In the thirties, when economic conditions were on the whole unfavourable, the proportion fell to less than one-fifth and in 1939 amounted to only 18 per cent. The post-war period has seen an improvement in export markets for raw materials and in 1949 about 23 per cent of the production of primary industries was exported. In 1950, however, mainly as a result of declining wheat exports, the proportion again declined to 18 per cent (see below). In addition, substantial quantities of the products of primary industries were exported in various stages of processing or fabrication, varying, for the different groups of manufactured products, from one to 60 per cent of the total gross value of each sector (see Section 3). This varying dependence, both direct and indirect, of primary industries on foreign markets changes greatly over time. By contrast, the construction industry caters exclusively to the home market. It is therefore not surprising that the overall investment behaviour indicated for the group appraised here is in fact a composite of distinctly varying patterns.

Year	Primary Industries <sup>1</sup> —\$ Mill.			
	Production	Imports	Exports	Domestic Supply <sup>2</sup>
1939.....	1,563	200	274	1,489
1946.....	2,964	517	604	2,877
1947.....	3,371	615	645	3,341
1948.....	4,228	736	811	4,153
1949.....	4,293	691	971	4,013
1950.....	4,590	843	835	4,598

<sup>1</sup> Includes trapping.

<sup>2</sup> Includes supplies for direct consumption at home and for further processing for both domestic consumption and export (see Section 3).

Three of the industries, primary woods operations, primary mining industry and the construction industry, show an erratic pattern, at times leading, at times conforming to and on still other occasions following turning points indicated for the group as a whole. For the other two industries, agriculture and fishing, an investment pattern in part leading and in part conforming to the general pattern is indicated (see below). Bearing in mind the approximate character of the estimates, these diverse patterns point to the different circumstances which lead entrepreneurs in these fields to vary their investment decisions as much as is in fact indicated. This conclusion suggests the desirability of considering investment behaviour for each of the groups separately, since an aggregate appraisal may on occasion obscure the diversity of investment decisions which occurs.

Sector	Non-War Turning Points of New Investment of Primary Industries and Construction Industry <sup>1</sup>					Apparent Pattern
	High 1929	Low 1933	High 1938	Low 1939	High 1949	
Agriculture.....	L	C	C	C	C	Conforming
Fishing.....	C	L	L	C	L	Leading
Primary Woods Operations.....	C	L	L	L	F	Erratic
Primary Mining Industry.....	C	L	C	F	F	Erratic
Construction Industry.....	C	C	F	L	C	Erratic

<sup>1</sup> L—Leading; C—Conforming; F—Following.

Some aspects of the factors influencing investment decisions separately in each of the five sectors in this industry group are discussed briefly in the remainder of this section.

### Type of Investment Expenditures

In 1950 primary industries and the construction industry spent more than three times as much on new investment as on repair and maintenance of existing structures, machinery and equipment. However, this proportion varied greatly between different industries and for different periods of time (see below). Over the last 25 years capital expenditures by this industrial

group, as in most other fields, fluctuated more substantially than repair and maintenance outlay.

The great emphasis on machinery and equipment purchases by primary industries and the construction industry is indicated by the fact that in 1950 for every dollar spent on construction three dollars were spent on the purchase of new machinery and equipment to replace existing facilities or add new. Investment outlay by fishermen consisted almost exclusively of equipment purchases. Farmers spent 84 per cent of their capital outlay on machinery and equipment, the construction industry devoted 81 per cent, and the primary woods operations and primary mining industry spent 53 per cent and 49 per cent respectively.

Industry	1939			1950		
	Total New Investment and Repair and Maintenance \$ Mill.	Per cent		Total New Investment and Repair and Maintenance \$ Mill.	Per cent	
		New Investment of Total	Machinery and Equipment Purchases of Total New Investment		New Investment of Total	Machinery and Equipment Purchases of Total New Investment
Agriculture.....	120.9	62	84	540.8	78	88
Fishing.....	7.0	63	100 <sup>1</sup>	24.1	83	100 <sup>1</sup>
Primary Woods Operations.....	11.9	41	51	56.0	54	53
Primary Mining Industry.....	49.1	63	46	182.0	74	49
Construction Industry.....	19.5	55	86	102.0	61	81
Total.....	208.4	60	74	904.9	74	78

<sup>1</sup> Includes small amounts of construction expenditures.

### Investment in Agriculture

As of mid-1950 agriculture provided a livelihood for 1.1 million farmers and workmen, or 21 per cent of the total civilian employment recorded in Canada at that time. It contributed \$1.6 billion to the net national income at factor cost, or 11 per cent of that total. In 1939 agriculture contributed 33 per cent to civilian employment and 12 per cent to national income.

The achievement of agriculture over the last century is that although it declined in relative importance as a field of employment it continued to increase its output. Perhaps the greatest change occurred from 1939 to 1950, when the working force on farms was reduced by some 300,000 persons but agricultural output approximately tripled in value terms (see below). If allowance is made for substantial price increases of farm produce, the volume of agricultural production in the post-war period was only moderately higher than the 1938-39 average.<sup>1</sup> However, in terms of output per person working in agriculture production was up notably.

Year	Agriculture—\$ Mill.			
	Production	Imports	Exports	Domestic Supply <sup>1</sup>
1939.....	894	98	176	816
1946.....	1,937	262	441	1,758
1947.....	2,122	283	460	1,945
1948.....	2,713	280	585	2,408
1949.....	2,710	292	721	2,281
1950.....	2,629	379	554	2,454

<sup>1</sup> Including supplies for direct domestic consumption and for further processing for both domestic consumption and export (see Section 3).

A number of factors contributed to this development. Heavy demand both domestic and foreign for most foods

grown in Canada, together with high prices, were an inducement for large agricultural output in the post-war period. This was not the case in the thirties, when agriculture was one of the most depressed sectors of the Canadian economy. Exports of agricultural commodities in their primary form increased three-fold between 1939 and 1950 (see above).<sup>2</sup> At the same time increased mechanization of farms was taking place. For example, the number of tractors on farms in the Prairie Provinces rose from 82,000 in 1936 to 131,000 in 1946, or by more than 60 per cent. Combines increased by nearly 300 per cent and motor trucks by over 160 per cent in the same period. Further, the trend towards larger farms continued, allowing greater use of mechanized equipment and reducing the requirements for manual labour in relation to output. As the wartime and post-war prosperity put increased pressure on the labour market, not only did "concealed" unemployment in rural areas virtually disappear, but the rising cost of labour encouraged the use of equipment.<sup>3</sup> The net result was a rising ratio of equipment to labour, contributing to a more effective use of both factors of production. Other new elements affecting the situation included increased application of fertilizers, the discontinuance of the use of some marginal lands, rotation of crops, and greater soil conservation and land reclamation efforts.

To achieve a high degree of mechanization farmers spent considerable sums of money on new equipment in the post-war period. From 1947 to 1950 they purchased on an average \$304 million worth of equipment per year in contrast to an annual average of \$94 million between 1926 and 1929 and \$59 million between 1936 and 1939. During the post-war period five out of every six dollars invested were spent on the purchase of machinery and equipment. Most of the construction involved farm buildings other than residences. In 1950, for example, out of every construction dollar 66 cents went into non-residential farm building, 23 cents into the erection

<sup>1</sup> This is indicated by the following index of the volume of agricultural production, prepared by Dominion Bureau of Statistics: average 1938 and 1939—118.1; 1946—125.6; 1947—116.0; 1948—125.1; 1949—122.5; 1950—139.8. (Base of index: 1935-1939=100). *Index of Farm Production 1950*, Dominion Bureau of Statistics Memorandum, 1951.

<sup>2</sup> In addition to exports of agricultural products in primary form substantial quantities of commodities in processed form were exported. For example, in 1950 \$403 million worth of food and beverages were shipped abroad (see p. 46).

<sup>3</sup> This was due in part to higher wages and in part to a reduction in the number of hours worked on farms. Further, greatly increased efficiency of modern agricultural machinery provided farmers with added incentives for further mechanization.



and improvement of farm homes, and the remaining 11 cents into other types of construction such as drainage and fencing.

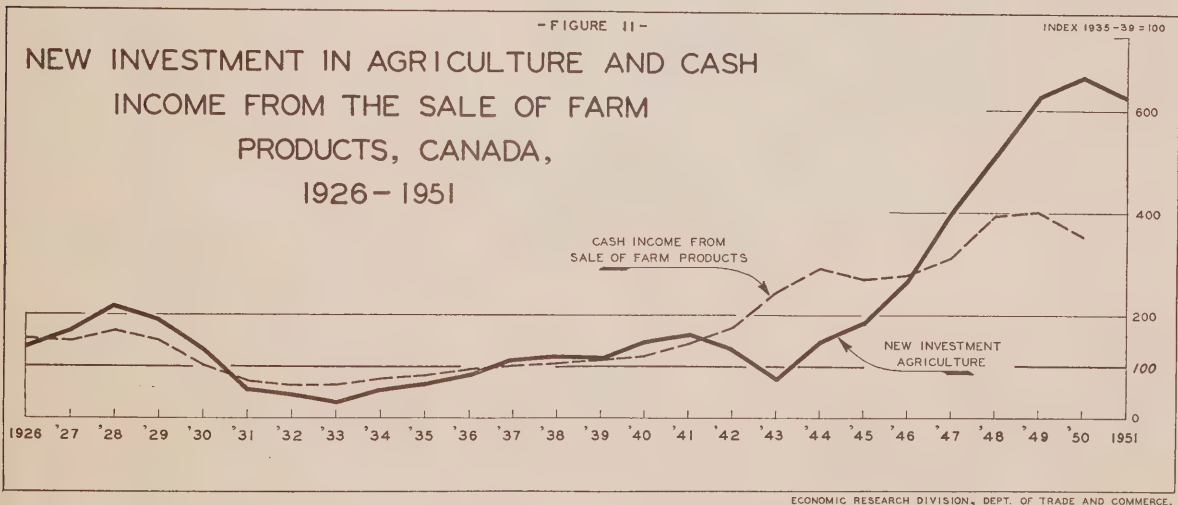
Capital expenditures by farmers have varied greatly over the last several decades. Among the many factors guiding their investment decisions have been market prospects, particularly foreign as far as the western agricultural community is concerned, the level of farm cash income, which has also fluctuated greatly, and credit conditions, which were favourable in the twenties and in the post-World War II period but were extremely difficult in the thirties and remained restricted during World War II. The large fluctuation during the last 25 years of both capital expenditures by farmers and their cash income received is apparent from Figure 11. Investment outlay, however, underwent wider swings than did farm cash income (see also below).

Period	Agriculture—Per cent Change	
	New Investment	Farm Cash Income
1926-1929.....	+ 36	- 3
1929-1933.....	- 84	- 57
1933-1937.....	+283	+ 59
1937-1939.....	+ 2	+ 12
1939-1950.....	+465	+210

High prices of agricultural products sold in the post-war period as well as higher output were responsible for farm cash income increasing more than three-fold between 1939 and 1950. Prices paid by farmers for the commodities and services they used rose less rapidly in this period than prices received for agricultural produce. In making this comparison it should be remembered, however, that food prices were particularly depressed in the thirties. On the whole favourable market conditions in the post-war period, together with a reduction in farm indebtedness, were the principal factors inducing the agricultural community to undertake the largest mechanization program in its history.

Year	Farm Cash Income \$ Mill.	Price Indices	
		Agricultural Products	Commodities and Services Used by Farmers <sup>1</sup>
1939.....	717	100	100
1946.....	1,742	219	158
1947.....	1,967	231	172
1948.....	2,463	275	198
1949.....	2,495	274	203
1950.....	2,224	272	209

<sup>1</sup> Excluding living costs.



### Investment in Fishing

The smallest of all primary industries, fishing, contributes about 2 per cent to the total production of primary industries in Canada, and close to one-half of one per cent to total net national income at factor cost. While the contribution of this industry to the total national economy is comparatively small, the industry is of particular importance on both the Atlantic and Pacific coasts, where it provides full-time employment

for thousands of fishermen. In addition it provides part-time employment to many thousands more both on the sea and in inland waters.

Between 60 and 70 per cent of the Canadian fish catch is exported (see below). In addition, large quantities of processed fish and fish products (included in manufactured products in the food and beverage group in Section 3) are sold abroad.

Year	Fishing—\$ Mill.			
	Production	Imports	Exports	Domestic Supply <sup>1</sup>
1939.....	22	1	13	10
1946.....	67	4	43	28
1947.....	58	3	39	22
1948.....	77	3	46	34
1949.....	69	3	48	24
1950.....	87	1	51	37

<sup>1</sup> Including supplies for direct domestic consumption and for further processing for both domestic consumption and export (see Section 3).

Capital expenditures by the fishing industry consist mainly of outlay on equipment, boats and vessels, fishing gear, etc. Only small amounts are spent on construction, such as the building and improvement of piers, wharves or boat houses. New investment expenditures during 1947 to 1950 averaged close to \$20 million a year, about four times the annual average of 1936 to 1939. In the post-war period the need for re-equipping Canada's fishing fleet and improving fishing operations was particularly great in view of considerable under-maintenance of equipment during the thirties and the war years. Increased competition anticipated from fishing fleets from other countries in the post-war period made it imperative for fishing operations to be performed as efficiently as possible if Canada was to continue to compete successfully in world markets.

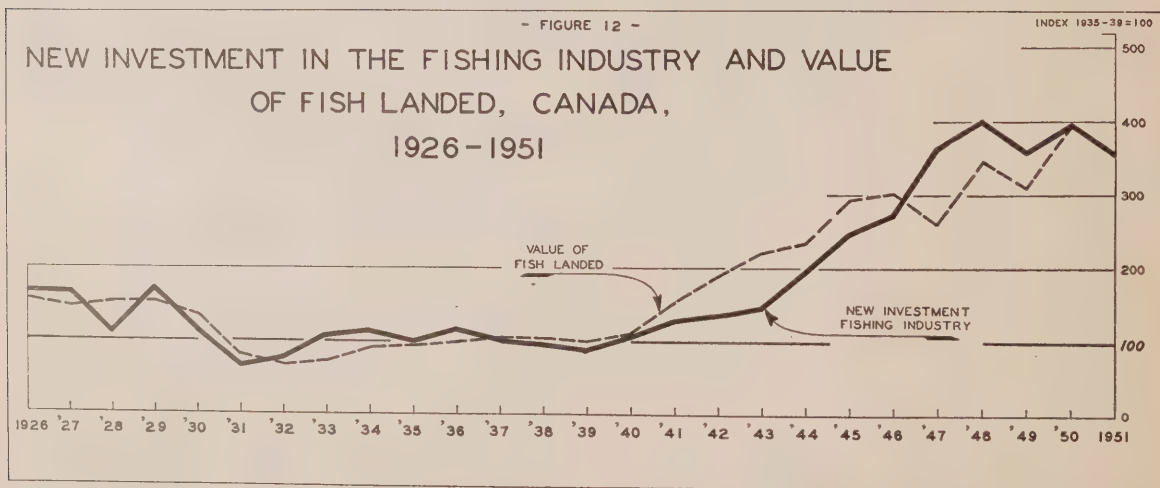
Fishermen are greatly dependent on the forces of nature for a successful catch and have also to contend, as far as their markets are concerned, with substantial fluctuations in foreign demand. These conditions are reflected in the changing rate of capital expenditures in the industry. As Figure 12 and the data below show,

investment expenditures and the value of fish landed have varied greatly over the last 25 years.

Period	Fishing—Per cent Change	
	New Investment	Value of Fish Landed
1926-1929.....	+ 2	- 3
1929-1931.....	- 63	- 47
1931-1936.....	+ 81	+ 22
1936-1939.....	- 24	- 2
1939-1950.....	+355	+295

In 1950 the value of fish landed was four times what it had been in 1939, but since prices of fish products in 1949 were about two and one-half times their pre-war level, the increase in the volume of output was more moderate (see below). Nevertheless the financial situation of the fishing community had improved somewhat, making it possible for it to embark, with some assistance from Federal and provincial governments, on a comparatively large program of expanding and improving the fishing fleet and its equipment.

Year	Price Index of Fishery Products
1939.....	100
1946.....	182
1947.....	206
1948.....	241
1949.....	252
1950.....	255



### Investment in Primary Woods Operations

Primary woods operations consist of cutting logs for use in sawmills and pulp mills, and for pit props, railway ties, telephone poles, etc. Like the fishing industry, the major economic significance of primary woods operations

lies in their regional impact, for in certain areas of Canada, particularly the coastal provinces, the industry represents a major source of employment and income. In many sectors of the country it provides winter employment in the forests for thousands of part-time farmers and fishermen.

For this group in particular finding winter employment in the woods makes the difference between a minimum and a sub-standard living. Thus the importance of the industry is much greater than its dollar contribution to total national economic activity would indicate. In 1950 primary woods operations were responsible for 18 per cent of the total value of production by primary industries and contributed 1.4 per cent to the Canadian national income in that year.

In considering the production, export and import figures relating to primary woods operations shown below, it should be borne in mind that by far the larger portion of wood cut in Canada is exported in some processed form. Thus in 1950 only \$49 million worth of timber, or 6 per cent of the primary wood cut, estimated at over \$800 million, was exported as logs. But after further processing and fabrication approximately \$350 million worth was sold abroad in the form of sawn lumber and wood products (see p. 54) and over \$700 million worth in the form of pulp and paper (see p. 56).

Year	Primary Woods Operations—\$ Mill.			
	Production	Imports	Exports	Domestic Supply <sup>1</sup>
1939.....	158	1	20	139
1946.....	413	1	46	368
1947.....	520	3	52	471
1948.....	586	4	63	527
1949.....	590	4	48	546
1950.....	808	9	49	768

<sup>1</sup> Including supplies for direct domestic consumption and for further processing for both domestic consumption and export (see Section 3).

The proportion of capital expenditures by the industry to total investment is notably smaller than the contribution of this sector to the output of all primary industries. The main reason is the relatively small quantity of equipment used in logging operations. There has, however, in recent years been a tendency towards greater use of equipment in the building of logging roads and transportation of logs and to some extent in cutting operations themselves. Much of this has arisen from the need to draw timber from stands at higher levels and more remote from water transportation. Power-driven hand-operated saws have also been developed since 1939. These are now widely used in the lumber and pulp and paper industries, enabling these industries to reduce the number of loggers employed per unit of output.

Over the last 25 years forestry operations have undergone substantial fluctuations. The industry suffered a great deal in the thirties, when its activity was cut by more than one-half in the short space of four years, from 1929 to 1933. Recovery was slow in the latter part of the thirties. It was not until the war years that output rose rapidly, reaching new peaks, and high levels continued with little interruption through the post-war years. Forestry industries were among the

first to be affected by declining overseas demand as foreign exchange difficulties made it necessary for some countries to reduce their purchases from Canada. A strengthening of foreign markets for partially and fully manufactured wood products occurred in 1950, particularly as a result of sizeable purchases by the United States in connection with the largest housing program in the history of that country.

With demand for forestry products varying substantially from year to year, partly because of changes in demand abroad but partly also because lumber requirements of the Canadian economy fluctuated widely with the country's construction program, notable changes have occurred in the volume of investment by the primary woods industry. As in most other industries capital expenditures by the primary woods industry appear to have fluctuated somewhat more than business activity in the industry (see below and Figure 13).

Period	Primary Woods Operations— Per cent Change	
	New Investment	Value of Forest Production
1926-1929.....	+ 10	+ 8
1929-1933.....	- 64	- 57
1933-1937.....	+113	+ 73
1937-1939.....	- 4	- 3
1939-1950.....	+512	+411

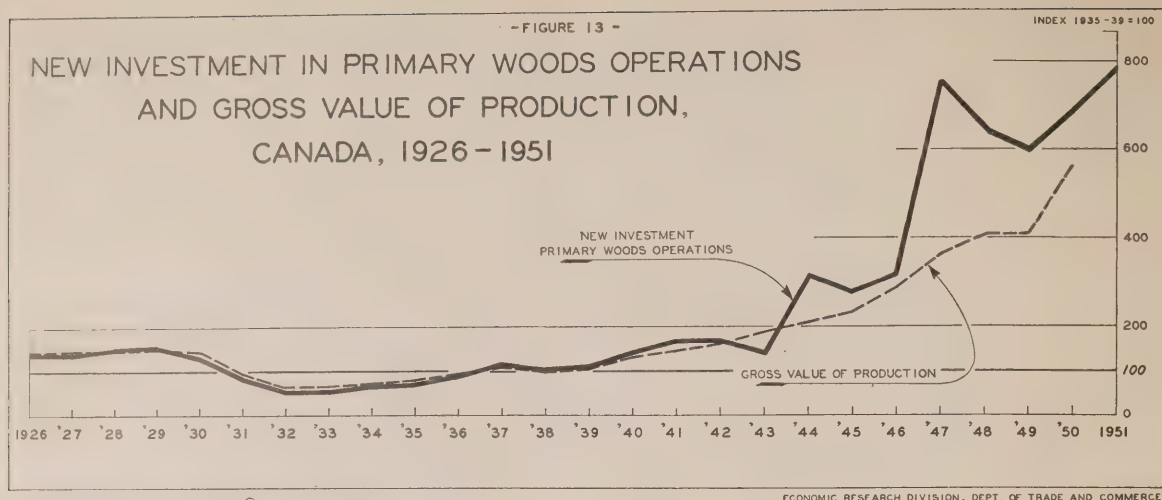
One incentive for large output of lumber in the post-war period was rising prices which by 1950 were more than three and one-half times what they had been before the war (see below). As the lumber industry prospered its capital outlay rose correspondingly, recording a more than six-fold increase between 1939 and 1950.

Year	Gross Value of Forest Production \$ Mill.	Wholesale Price Index of Lumber and Timber
1939.....	158	100
1946.....	413	186
1947.....	520	247
1948.....	586	310
1949.....	590	328
1950.....	808	363

### Investment in Primary Mining Industries

Primary mining industries carry on the extraction of iron ore, non-ferrous metals, e.g., nickel, zinc, copper, lead, silver and gold, and non-metallic minerals such as coal, petroleum, gas, asbestos, and stone and gravel. Only the extractive operation is covered here; the processing and fabricating stages are included in manufacturing in Section 3. The mining industry is the





second most important of primary industries, following agriculture. As of mid-1950 it provided employment for over 70,000 persons, or about one and one-half per cent of the number of civilians employed in Canada. The gross value of mineral production in 1950 is estimated at over one billion dollars, or about 23 per cent of the total output of primary industries. The industry contributed about 3.4 per cent of total national income in the same year.

Imports of primary products in this field were quite important, particularly coal and crude oil. In 1950 imports amounted to \$444 million and were responsible for about 33 per cent of the total domestic supply of minerals, oil and quarry products. On the whole, imports of minerals have been rising in recent years. For example, even though increasing quantities of crude oil are being produced in Alberta and shipped to other parts of the country, the Canadian refining industry continues to be based to an important extent on imported petroleum. Canadian imports of non-ferrous metal ores for processing in smelters such as the one at Trail, while small, are rising. In the case of most other metals, Canadians are buying them in refined form. Bauxite, from which aluminum is made, is a notable exception. Imports of this ore have increased many times over. Coal imports, which had been rising until 1948, have been on somewhat lower levels in both volume and value terms in the last two years.

Exports of minerals in raw form were less important than imports, the former amounting to \$157 million or 15 per cent of the total value of mineral production (see below). The reason for this is the continuing growth of smelting, processing and fabricating facilities in Canada. In individual sectors, however, substantial quantities of ores were exported. For example, of a total of 3.6 million tons of iron ore mined in Canada (including Newfoundland) in 1950 about 2.2 million tons, or 61 per cent of the total output were shipped abroad. Moreover, substantial quantities of minerals

were exported in processed and more advanced forms of fabrication. For example, an additional over \$400 million worth was sold to other countries in 1950 in the form of refined non-ferrous metals, processed non-metallic minerals and products made from these metals and minerals (see pp. 65 and 67).

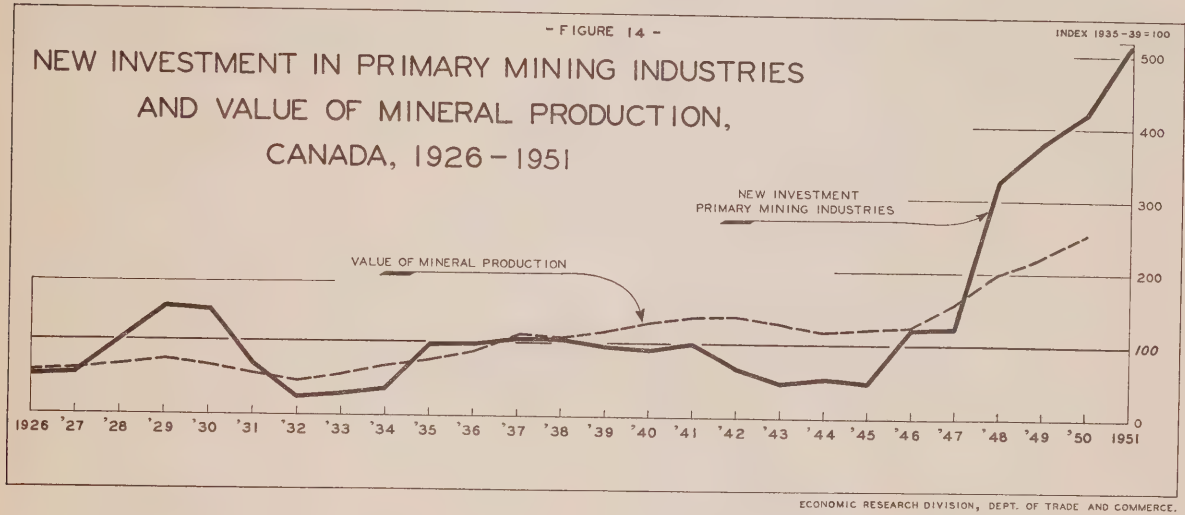
Year	Primary Mining—\$ Mill.			
	Production	Imports	Exports	Domestic Supply <sup>1</sup>
1939.....	475	97	51	521
1946.....	503	243	43	703
1947.....	645	319	66	898
1948.....	820	439	94	1,165
1949.....	901	386	132	1,155
1950.....	1,041	444	157	1,328

<sup>1</sup> Including supplies for direct domestic consumption and for further processing for both domestic consumption and export (see Section 3).

Exploration, development and re-equipment in certain sectors of the mining industry in Canada in the post-war period have exceeded all previous levels. Led by substantial discoveries in oil, natural gas and iron, expansion and modernization of mines have spread to a wide range of minerals. Examples of new developments in the mining field (quite apart from substantial expansion in refining and smelting discussed in Section 3) include promising copper and zinc properties recently discovered on the Gaspé Peninsula and in Northwestern Quebec and a large deposit of copper-nickel ore outlined in Northern Manitoba. Titanium ores are now being mined at Allard Lake in Quebec and asbestos deposits in Northern Ontario. At the same time large capital expenditures have been made in modernizing and expanding mines already in operation. Expenditures amounting to millions of dollars annually have been made on mines producing iron ore, nickel, copper, zinc, lead, silver and gold.

In the post-war period, therefore, capital expenditures by the primary mining industries, averaging \$108 million during 1947 to 1950, were substantially higher than corresponding annual outlays amounting to \$28 million from 1926 to 1929 and \$32 million from 1936 to 1939. Capital outlay by the industry underwent much greater fluctuations than business activity in the industry (see below and Figure 14). Depending on world markets, the substantial fluctuations of prices which could in a short period make the whole operation of a mine uneconomical, as well as insufficiency of risk capital, have been among the causes of intermittent investment in Canadian mining.

Period	Primary Mining— Per cent Change	
	New Investment	Value of Mineral Production
1926-1929.....	+172	+ 30
1929-1933.....	- 81	- 29
1933-1937.....	+284	+107
1937-1939.....	- 8	+ 4
1939-1950.....	+336	+119



The rapid increases in mineral prices that have occurred in the past decade have been quite uneven, as the following data show. Since the value of production in 1950 was more than double its pre-war level, rapid price increases ranging from 38 to some 250 per cent (see below) suggest that in volume terms production has risen only moderately. Compared with

this capital expenditures by the industry have risen much more substantially in the post-war period, holding promise for greater output by the primary mining industry in the future. Expanded requirements for minerals of all kinds, as a result of stepped-up preparedness efforts in 1950, indicate a market for the rising output of this primary industry.

Year	Value of Mineral Production \$ Mill.	Wholesale Price Indices			
		Copper and Its Products	Lead and Its Products	Zinc and Its Products	Sand and Gravel
1939.....	475	100	100	100	100
1946.....	503	110	118	133	100
1947.....	645	177	282	235	107
1948.....	820	206	383	313	124
1949.....	901	188	349	301	133
1950.....	1,041	218	322	354	138

## Investment in the Construction Industry

As of mid-1950 the construction industry provided employment for 327,000 men, or 7 per cent of the number employed in civilian industry. Its contribution to the national income amounted to \$835 million, or 6 per cent of the Canadian total in that year. It bears emphasis that these indicators cover largely the work performed by professional contractors, builders, sub-contractors and skilled tradesmen and their assistants and a small number of owner-builders. They do not include large amounts of construction work performed by some firms or governments with their own workmen on their own account, or the value of a great deal of construction work, both new and repair and maintenance, carried out by owners of properties in both urban and rural areas. The gross value of output as reported for the construction industry in 1949 was over \$2.2 billion.<sup>1</sup> This compares with over \$2.9 billion, the estimated total value of construction work of all types, both new and repair and maintenance, put in place in 1949. Thus in 1949 the more or less professional sector accounted for about four-fifths of the construction industry's output.

The post-war peak of new investment in the construction industry was reached in 1948, when the industry spent close to \$60 million, about six times what it had spent before the war, or twice what it had laid out at the height of the prosperous twenties. In spite of comparatively large increases in its equipment and installations the construction industry has been spending small amounts in relation to the large business turnover. Capital outlay in the post-war period was about 2 per cent of total new and repair and maintenance construction taking place in Canada. Contrasted with this the capital outlay by manufacturing industries equalled about four per cent of the total gross value of production. In part the low ratio of investment to output in the construction industry is explained by its structure. A number of large construction firms, particularly those engaged in road building and earth moving projects, employ large quantities of up-to-date equipment and are among the most mechanized enterprises in the construction field in the world. But much of the construction work in Canada is carried out by a great number of tradesmen and other construction workers performing largely manual operations in which they employ only small quantities of tools and equipment. Thus, while investment in the construction industry as a whole is quite small if compared with other industries, particular sectors of the construction industry are highly mechanized and make correspondingly substantial capital expenditures.

Although fluctuations in the volume of construction have been substantial over the last 25 years, investment by the industry in the pre-war period varied even more from year to year (see Figure 15). In the post-World

War II period capital outlay by the industry has risen more rapidly than construction business. The main reason for this was the attempt of the industry to expand its capital facilities to cope with the large volume of construction contracts and to increase the efficiency of the construction labour force, whose output per man-hour in the immediate post-war period was lower than before the war<sup>2</sup> (see below).

Period	Construction Industry— Per cent Change	
	New Investment	Total Value of New Construc- tion
1926-1929.....	+126	+ 64
1929-1933.....	- 95	- 74
1933-1937.....	+588	+126
1937-1939.....	- 8	- 7
1939-1950.....	+474	+392

In spite of all the difficulties faced by the construction industry in the post-war period it was able to expand its capacity sufficiently to undertake the largest program in its history. Rising prices (see below) and profits<sup>3</sup> provided added incentive for the industry to buy more equipment and install such facilities as would increase the effectiveness of on-site construction operations.

Year	New, Repair and Maintenance Construc- tion \$ Bill.	Construction Price Indices		
		Wage Rates	Building Materials	Combined Wage Rates and Building Materials
1939.....	0.8	100	100	100
1946.....	1.6	145	150	148
1947.....	2.0	159	186	174
1948.....	2.6	180	218	198
1949.....	2.9	188	225	208
1950.....	3.2	194	245	224

## Detailed Information on Investment in Primary Industries and the Construction Industry

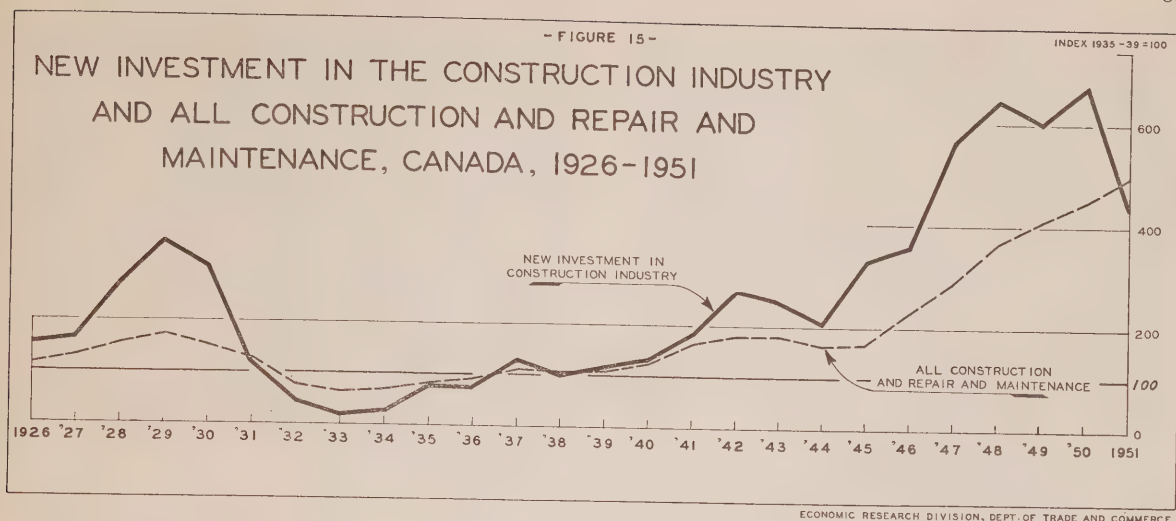
More detailed information on the type and extent of capital and repair and maintenance expenditures made by primary industries and the construction industry in the years 1926 to 1951 will be found in Tables 18 to 23 in Part II.

<sup>1</sup> *The Construction Industry in Canada, 1949*, Dominion Bureau of Statistics, Ottawa, January 1951.

<sup>2</sup> *Residential Real Estate in Canada*, p. 404. See also John Caulfield Smith, "What Will Your Housing Dollar Buy Today?", *The Financial Post*, Toronto, December 23, 1950, p. 11.

<sup>3</sup> *Investment and Inflation*, p. 111.





### SECTION 3. INVESTMENT IN MANUFACTURING

#### New Eminence of Manufacturing Industries

The substantial improvement in the standard of living of the present generation of Canadians, and their ability to achieve this in conjunction with a reduction in working time and an increase in leisure and non-material pursuits have been largely, as emphasized earlier, the outcome of significant structural changes which have taken place in the Canadian economy in the last three decades. The outstanding of these is the new eminence achieved by domestic manufacturing industries.

It is the purpose of this chapter to examine briefly the position that manufacturing industries now occupy in the Canadian economy in terms of output, employment, income, trade and investment, and the growth and diversification that have taken place within this sector. Since this study is primarily concerned with investment the capital expenditures of major manufacturing groups are examined in some detail.

Seventeen quite diverse sectors<sup>1</sup> make up the aggregate loosely called "manufacturing". In following the Canadian Standard Industrial Classification<sup>2</sup>, which in turn is in line with internationally accepted classification standards, the appraisal covers "manufacturing" broadly defined to include all manufacturing stages, from processing of raw materials to the fabrication of intricate and made-to-order capital goods and the mass

production of standardized consumer articles. The diversity of the manufacturing process is indicated by the range of its application. Included in the same broad grouping are the smelting of ores, the milling of grain, the creation of synthetic yarns, the making of butter and cheese, the rolling of steel sheet, the weaving of cloth, the cutting of tools, the construction of machinery, and the fabrication of both semi-durable and durable consumer goods. It is important, therefore, to remember that the manufacturing analysis below refers to processes which include the production of both finished and unfinished goods,<sup>3</sup> whether for final use by consumers, business, governments and institutions, or for integration into other production processes.

#### Manufacturing Overtakes Agriculture

During most of the first half-century after Confederation agriculture was the main source of income and employment in Canada. But two world wars, a stepped-up rate of accumulation of domestic capital, development of low-cost sources of power, a rapid advancement of managerial and technical skills, and significant engineering and technological progress have changed the structure of the Canadian economy profoundly.<sup>4</sup> Revised estimates of the value of domestic production of nine major sectors of the economy<sup>5</sup> indicate that by

<sup>1</sup> Investment data are shown for thirteen manufacturing groups for the period 1926-1951 in Part II, with further details for seventeen groups for the period 1946-1951 included in this section.

<sup>2</sup> *Standard Industrial Classification Manual*, Dominion Bureau of Statistics, Ottawa, 1948.

<sup>3</sup> A similar distinction is frequently made in terms of "fully" and "partially" manufactured goods.

<sup>4</sup> Another institutional factor was the influence of Canadian tariffs. This goes back to the very early years of Canadian nationhood. "When the so-called National Policy was translated into law in 1879 a definite decision was taken for the promotion of industrialization within Canada through the means of protective customs duties. This decision has been the subject of much controversy and has been frequently attacked. It has, however, never been reversed nor indeed very seriously modified." Mackintosh, W. A., *The Economic Background of Dominion-Provincial Relations*, Royal Commission on Dominion-Provincial Relations, Ottawa, 1939, p. 17. This emphasis has been changing in recent years. In the post-war period Canada has participated in several international conferences for the overall reduction of tariffs and, together with other nations, has subscribed to the principle of gradual freeing of trade.

<sup>5</sup> To avoid the double counting in measuring output by manufacturing industries which is implicit in defining gross value of production, the concept of net value of production is used. Net value of production represents an attempt to eliminate from the total value of all individual commodities produced in a particular industry (the gross value of production) the cost (or value) of materials, fuel, purchased electricity and processed supplies consumed in the production process (see also footnote 1 to the table on p. 36).

the end of World War I the dominant role of manufacturing in terms of output was well established. Since then manufacturing industries have continued to increase their contribution to national economic activity in terms of employment and income and to national welfare in terms of output. The contribution has fluctuated during this period, particularly during World War II when the requirements for war equipment and munitions made spectacular demands on the capacity of Canadian manufacturing industries.

Canadian manufacturing industries have grown by fits and starts. Gains made under the stimulus of wartime development have been consolidated in the years of peace that followed, thus laying a foundation for new growth. In World War I, for example, military exigencies were responsible for the establishment of new refining capacity for non-ferrous metals in Canada, e.g., copper, zinc and magnesium. Prior to this development Canadian concentrates of zinc and copper matte had been processed in the United States. The development of a shell industry in Canada and heavy demand for steel products including rods, billets, bars and other semi-fabricated or fabricated products and components were responsible for a substantial expansion of domestic steel capacity, from an estimated one million to one and one-quarter million ingot tons in 1914 to two and one-quarter million ingot tons in 1919. In fact, such a relatively high level was reached after World War I that little further change occurred in Canadian steel capacity until the outbreak of World War II.

Other manufacturing industries that were either newly created or greatly expanded during World War I were the aircraft and shipbuilding industries. From a very modest beginning in 1917 a small aircraft industry was developed which in the course of two years turned out some 3,000 training planes for British and Canadian forces. Canadian shipyards were greatly expanded and produced close to 100 ships, about half the number in steel and the other half in wood, and involving a total of about 350,000 dead weight tons.

Purchases of military equipment and munitions and related expenditures on British, United States and Canadian account involved outlays exceeding \$1.5 billion during World War I. These expenditures influenced significantly the development and composition of Canadian manufacturing industries. Plant facilities and equipment were expanded and managerial and technical knowledge acquired which enabled most industries in the post-World War I period to undertake more diversified, integrated and efficient operations than they had previously been able to perform.

The next important phase of industrial expansion occurred between 1926 and 1929, when manufacturing investment rose by some two-thirds in volume terms. In this period industrial growth was particularly rapid in the pulp and paper industries, the transportation equipment industry (especially in the automotive field), the non-metallic mineral products field (largely associated with the building boom of the late twenties), and the chemicals and allied products industries. Indeed, in volume terms manufacturing investment

reached a peak in 1929 which has not been matched even by post-World War II developments (see Table 12 in Part II). The depressed economic conditions of the thirties slowed down the growth of manufacturing industries. But even under the handicap of lower demand from both domestic and foreign sources some manufacturing industries made notable gains in expansion of capacity and improvement of production processes. One example of development in the thirties was the primary textile industry, where new materials and techniques stimulated further growth and diversification.

In the two decades before World War II manufacturing's contribution to the total value of output of the nine major sectors of the economy rose from 44 per cent in 1919 to 46 per cent in 1929 and remained at about that level in 1939. In contrast, the contribution of agriculture fell from 32 per cent in 1919 to 21 per cent in 1929 and 1939<sup>1</sup> (see below).

Year	Per cent of Total Value <sup>1</sup> of Domestic Production by Nine Major Sectors <sup>2</sup>	
	Manufacturing	Agriculture
1919.....	44	32
1920.....	44	30
1921.....	43	30
1927.....	41	29
1928.....	42	28
1929.....	46	21
1931.....	47	16
1939.....	45	21
1943.....	57	18
1949.....	49	19
1950.....	50	17

<sup>1</sup>This is the sum total of the net value of production of nine major sectors of the economy after elimination of intra-industry and before elimination of inter-industry duplications. Since published data are not fully comparable over the above period, adjustments have been made to approximate comparability.

<sup>2</sup>The nine major sectors covered are: agriculture, forestry, fisheries, trapping, mining, electric power, manufactures, construction and custom and repair.

## Manufacturing Growth During World War II

When World War II broke out Canadian manufacturing industries, although considerably grown in stature, were unprepared for the avalanche of military orders. Conversion to war production was accomplished in the short space of two years. Expansion of productive capacity in manufacturing was particularly striking in such fields as tool making, electrical apparatus, chemicals and aluminum. New factories were built, shipyards constructed and armament assembly lines installed. Entire new industries were created, making for example roller bearings, magnesium and artificial rubber. Many existing industries underwent marked expansion. Some industries with relatively small employment before the war attained such a large wartime employment that the process amounted to the creation of a new industry rather than the expansion of an old one. Examples

<sup>1</sup> It should be noted that this decline is relative. In absolute terms agricultural output increased over this period as illustrated by data on farm cash income (see Table 18 in Part II).



are aircraft production and shipbuilding. Advances were made in the production of finished goods and equipment, some of which were of a type quite new to Canadian industry and which had previously been imported, such as optical glass, high octane gasoline, penicillin and sulfa drugs.<sup>1</sup> At the height of the industrial war effort in 1943, about three out of every five persons employed in Canadian manufacturing industries worked on war orders<sup>2</sup> (see below).

Year	War Employment as a Per cent of Total Manufacturing Employment
1939.....	9
1940.....	18
1941.....	37
1942.....	59
1943.....	64
1944.....	55
1945.....	17

Adaptation of manufacturing industries to meet military demands during World War II required still greater diversification and increased skill and technical knowledge, more complex machinery and more closely integrated processes than anything that had previously been known in Canada. Thus simple figures of expansion in terms of capacity and output do not tell the full story of the change which Canadian manufacturing industries underwent in this six-year period. But even in purely statistical terms the growth was remarkable. Between 1939 and the war peak, reached between 1942 and 1944, output of steel increased by approximately 120 per cent and of aluminum by about 500 per cent. Notable increases were also recorded in other non-ferrous metals with zinc, lead and nickel up 55, 32, and 27 per cent respectively. Entirely new developments included the production of synthetic rubber, commencing with an annual output of 3,000 tons in 1943 and rising to 45,000 tons in 1945.

Fully fabricated war equipment and munitions were also turned out in large volume. From 1939 to 1945 some 816,000 mechanized transport vehicles were produced in addition to over 50,000 armored fighting vehicles.<sup>3</sup> Canadian shipyards in the same period built over 4,000 naval ships and approximately 400 ocean-going merchant vessels<sup>4</sup> the latter involving some 3.7 million dead weight tons, in addition to substantial ship conversion and repair work. The aircraft industry produced in the same period over 16,000 military planes. The chemical industry turned out some 3 billion pounds

of chemicals and one billion pounds of explosives, which made it possible to produce ammunition of the following order: 39 million rounds of gun ammunition, 16 million projectiles, 27 million cartridges, 12 million grenades, 11 million mortar bombs, 7 million depth charges, smoke generators, projectile war heads, and anti-tank mines, and over 4 billion rounds of small arms ammunition.

This tremendous output of munitions and war equipment, valued at about \$10 billion, was used only in part by Canadian forces, with the larger proportion, about 70 per cent, being made available to Allied forces.

### Consolidation of Manufacturing Expansion and Further Growth in the Post-World War II Period

About two-thirds of the industrial war structure created during World War II was found adaptable to peacetime uses.<sup>5</sup> Although peacetime reconversion, modernization and expansion involved large capital outlays and although supply shortages slowed down the implementation of the program, most of the work was completed by the end of 1947.<sup>6</sup> Manufacturing industries were then geared to turn out an expanding volume of civilian capital and consumer goods and proceeded to do so. The process of reconversion came to an end in 1947, but further expansion and modernization of Canadian manufacturing plants continued. These developments are reviewed on an industry basis later in this chapter.

At the height of World War II manufacturing contributed 57 per cent to the net value of domestic production. Agriculture contributed 18 per cent, and in addition to feeding some 12 million Canadians, this industry provided essential food supplies to millions of Allied nationals. By 1950 the contribution of manufacturing to the value of domestic production had declined to 50 per cent, somewhat below the wartime peak but notably above the pre-war situation. Agriculture's contribution declined only slightly, amounting to 17 per cent in 1950.

The importance which manufacturing industries have achieved during and since World War II as a factor influencing the level of economic activity in Canada is indicated by their contribution to employment and income. While in terms of output manufacturing had overtaken agriculture much earlier, it was not until World War II that manufacturing for the first time became the major field of employment.<sup>7</sup> At the war peak manufacturing was responsible for 28 per cent of total civilian employment, as against 25 per cent for agriculture. Both these proportions declined somewhat in the post-war period as service industries became more important. In 1950 manufacturing still exceeded agriculture, with 26 per cent as compared with 21 per

<sup>1</sup> *Encouragement to Industrial Expansion in Canada, Operation of Special Depreciation Provisions, November 10, 1944—March 31, 1949*, Department of Reconstruction and Supply, Ottawa, 1948, p. 13.

<sup>2</sup> Estimates from records of Department of Munitions and Supply.

<sup>3</sup> The above war production figures come from the records of the Department of Munitions and Supply. Most of the data have been published in summary form in Kennedy, J. deN., *History of the Department of Munitions and Supply*, Ottawa, 1950, Vol. II, pp. 499 ff.

<sup>4</sup> In addition more than 4,200 small craft were built in Canadian shipyards.

<sup>5</sup> *Encouragement to Industrial Expansion in Canada*, p. 15.

<sup>6</sup> *Ibid.* p. 3.

<sup>7</sup> For a comparison with the contribution of the service and other sectors to economic activity, see Section 1, pp. 12 ff.



cent. This situation is a far cry from the position some three decades ago, when agriculture provided employment for about twice as many people as did manufacturing (see below).

Year	Total Civilian Employment <sup>1</sup> Mill.	Per cent of Total	
		Manufacturing	Agriculture
1921.....	3.0	19	37
1931.....	3.6	18	33
1939.....	4.1	17	33
1943.....	4.4	28	25
1944.....	4.4	28	25
1949.....	5.0	26	22
1950.....	5.0	26	21

<sup>1</sup> In week ending June 1 of each year.

A somewhat similar situation is indicated by the contribution which manufacturing and agriculture make to national income. In 1950 manufacturing made up 31 per cent of national income, estimated at \$14 billion, while agriculture contributed 11 per cent. Since 1939 manufacturing has improved its relative position, while agriculture's position has slightly worsened (see below).

Year	National Income <sup>1</sup> \$ Bill.	Per cent of Total	
		Manufacturing	Agriculture
1939.....	4.4	27	12
1944.....	9.8	30	14
1949.....	13.2	30	13
1950.....	14.4	31	11

<sup>1</sup> At factor cost.

## Manufacturing and Trade

The analysis so far has been concerned with what expansion of manufacturing industries has meant to the domestic economy. A related question is: What has been the impact of manufacturing growth on Canadian trade?

This question cannot be answered briefly without considerable over-simplification, but three general observations may be made in the present connection.

First, Canadian manufacturing industries are primarily domestic industries, that is, they rely on Canadian purchasers for more than four-fifths of their sales. Such an overall figure, of course, does not indicate the importance of foreign markets for specific industries. The significance for Canadian manufacturing industries of sales abroad varies, being less in the case of some of the more highly manufactured articles and greater in the case of some semi-processed goods. The group as a whole, however, caters chiefly to the domestic market.

Secondly, partially and fully manufactured commodities have become increasingly important to Canadian export trade. In value terms the contribution of partially and fully manufactured goods rose from about 55 per cent in the early twenties to 70 per cent in 1939. In the war years they reached a peak of 83 per cent and then declined by 1950 to about the pre-war ratio of 1939. The important thing, however, is that the 1950 ratio of 72 per cent has been maintained at a high level of trade. For in value terms exports more than tripled from 1939 to 1950 (see below).

Thirdly, as the domestic market expanded over the last half-century Canada continued to be an important importer of partially and fully manufactured goods even though her own manufacturing industries grew substantially and became more diversified. The data below also show that partially and fully manufactured goods have formed a steadier proportion (by value) of Canada's imports. Moreover, imports of these

Year	Exports		Imports	
	Amount \$ Bill.	Fully and Partially Manufactured Products as Per cent of Total <sup>1</sup>	Amount \$ Bill.	Fully and Partially Manufactured Products as Per cent of Total <sup>1</sup>
1920.....	1.2	56	1.2	75
1925.....	1.3	54	0.9	72
1928.....	1.3	52	1.3	77
1929.....	1.1	64	1.2	77
1939.....	0.9	70	0.8	73
1943.....	3.0	83	1.7	77
1946.....	2.3	74	1.9	73
1947.....	2.8	77	2.6	76
1948.....	3.1	74	2.6	72
1949.....	3.0	68	2.8	75
1950.....	3.1	72	3.2	73

<sup>1</sup> The figures used in computing these percentages were taken from *Trade of Canada, 1949*, Dominion Bureau of Statistics, and similar compilations have been prepared for 1950. These figures vary slightly from those shown in the table on the following page which represents a summation of the value of those products which can be allocated to individual manufacturing industries. In the case of imports, the *Trade of Canada* figures are from 2 to 12 per cent higher, principally because certain items such as value of settlers' effects and purchases abroad by Canadian tourists cannot readily be classified on an industrial basis. In the case of exports, the *Trade of Canada* figures are up to 4 per cent lower than those computed on an industry basis, since the miscellaneous items that cannot be classified are more than offset by the addition of such items as fresh meats and fresh fish. While classified as raw materials in *Trade of Canada*, fresh meats and fish may also be included as products of the meat and fish packing industries if these plants prepare meat and fish for marketing.

goods comprise about 16 per cent of the total domestic supply of such articles (see below). This indicates that some five-sixths of the Canadian market for partially and fully manufactured goods is domestically supplied. As in the case of exports, such a ratio must be interpreted with caution. It does not, for example, reflect the widely varying degrees to which goods of foreign origin compete with domestic manufactures in the Canadian market. Some account should also be taken of the fact that Canadian domestic manufactures

contain a varying and often substantial proportion of imported items, ranging from raw materials to finished parts and sub-assemblies.<sup>1</sup> In brief, therefore, the growth of Canadian domestic manufactures as a group has been paralleled by expansion of the domestic market for partially and fully manufactured products. For this reason the development of this group of industries as a whole has brought about little change in the degree to which partially and fully manufactured products enter into the Canadian import trade.

Year	Domestic Production \$ Bill.	Imports <sup>1</sup> \$ Bill.	Exports <sup>1</sup> \$ Bill.	Domestic Supply \$ Bill.	Imports as Per cent of Domestic Supply	Exports as Per cent of Domestic Production
1939.....	3.5	0.5	0.6	3.4	15	17
1946.....	8.0	1.4	1.7	7.7	18	21
1947.....	10.1	2.0	2.1	10.0	20	21
1948.....	11.9	1.9	2.3	11.5	16	19
1949.....	12.4	2.0	2.0	12.4	16	16
1950.....	14.0	2.3	2.2	14.1	16	16

<sup>1</sup> Of manufactured goods.

### Investment and Manufacturing Growth

The historical record of investment and manufacturing growth is summarized in Part II in Table 24 and subsequent tables. Here only a few highlights are noted.

Industrial growth in terms of increasing the number of plants and the volume of output was quite modest

between 1929 and 1939; employment, after a considerable decline during most of the thirties, by 1939 about reached the level of ten years earlier;<sup>2</sup> investment, on the other hand, which had also declined substantially in the thirties, never recovered to the 1929 level and in fact in 1939 was substantially lower, in value and volume terms, than it had been a decade earlier.

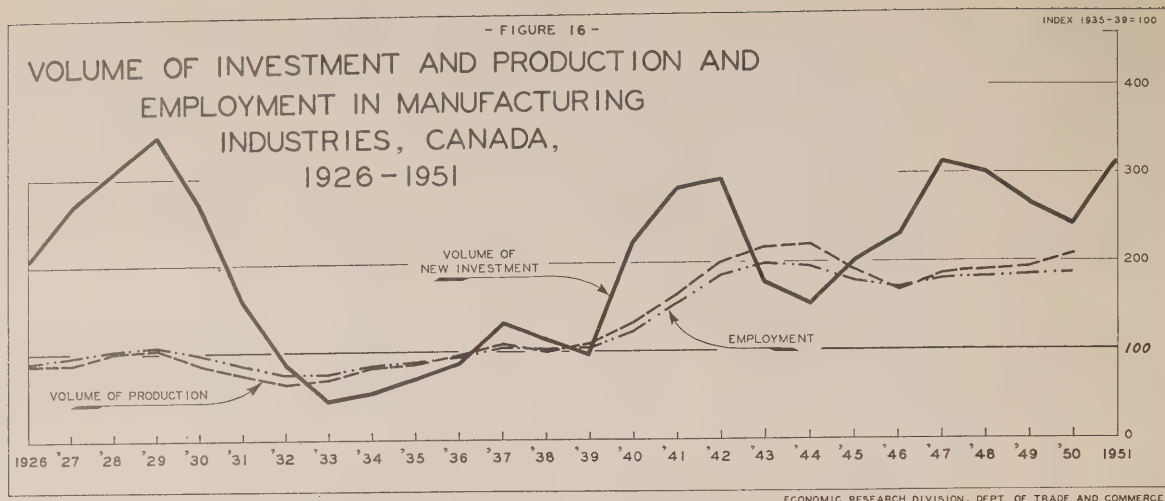
Year	New Investment \$ Mill.	Establish- ments Thous.	Employment Thous.	Gross Value of Production \$ Bill.	Net Value of Production \$ Bill.
1929.....	374	22	667	3.9	1.8
1939.....	98	25	658	3.5	1.5
1949.....	536	34	1,159	12.4	5.3
1950.....	519	35	1,171	14.0	6.0

The most rapid expansion of manufacturing investment and industrial growth occurred during the period 1939 to 1950. The volume of investment increased by more than two and one-half times and the volume of production nearly doubled (see Figure 16.) The number of manufacturing plants increased by about one-third. Substantial as the rise in the volume of investment was, it did not match the larger volume of investment estimated to have been made by manufacturing industries at the height of the prosperous twenties (see below).

Year	Indices			
	Volume of Investment	Establish- ments	Employ- ment	Volume of Production
1929.....	362	90	101	97
1939.....	100	100	100	100
1949.....	279	139	176	180
1950.....	254	142	178	193

<sup>1</sup> See also p. 23. It is difficult to make a reliable estimate of this "import content" on the basis of information available at present on this subject.

<sup>2</sup> The employment data shown above and used in the sector analysis of manufacturing industries represent a monthly average during the year and are obtained from annual censuses of manufacturing. Employment in manufacturing mentioned previously in conjunction with total civilian employment refers to the employment situation in the week ending June 1 of each year and is based on population censuses and sample surveys of the labour force.



Most of the expansion and modernization of manufacturing plants<sup>1</sup> in the post-war period was undertaken by corporations and financed from their retained earnings.<sup>2</sup> Although in the minority in numbers, incorporated companies provide 88 per cent of total manufacturing employment and produce 91 per cent of all manufactured goods turned out (see below).

Item	Total <sup>1</sup>	Incorporated Companies as a Per cent of Total
Number of Establishments		
— Thous.	33	33
Number of Employees		
— Thous.	1,156	88
Gross Value of Production		
— \$ Bill.	11.9	91

<sup>1</sup> As of 1948.

In the post-war period, two other factors contributed to the large expansion in the investment program of manufacturing industries: substantial increases in profits and almost continuously rising prices of manufactured commodities. This development in turn was the result of strong domestic demand for a greater variety of consumer and capital goods, and reasonably firm foreign demand, particularly for processed materials and machinery and equipment. Net profits of manufacturing companies for which comparable records are available<sup>3</sup> more than doubled between 1939 and 1948, declined somewhat in 1949 and rose to a new high in 1950. Wholesale prices as reflected in the index of fully and chiefly manufactured products, were in 1950

more than twice what they had been in 1939 (see below). In comparing pre-war and post-war conditions it should be remembered that both profits and prices were generally considered as depressed in the thirties.

Year	Net Profits of 310 Manufacturing Companies		Wholesale Price Index
	\$ Mill.	Index	
1939.....	177	100	100
1946.....	228	129	135
1947.....	332	188	159
1948.....	429	242	189
1949.....	411	232	195
1950.....	497	281	211

An additional factor that contributed to the large capital expenditure program by manufacturing industries in the post-war period was the entry of many new firms into the field. Between 1946 and 1950 some 1,031 new medium and large-sized firms, each employing ten or more persons, commenced operations. Of these, 834 were domestic enterprises while 147 had their origin in the United States, 34 in the United Kingdom and 16 in other countries. In total these companies provided over 41,000 new jobs, 60 per cent in enterprises of Canadian origin, 25 per cent with firms originating in the United States, 14 per cent in United Kingdom-sponsored plants and one per cent in factories established by companies from other parts of the world.<sup>4</sup> This is an addition of about 3 per cent to the number employed in manufacturing. Capital expenditures for plant expansion by these firms involved an estimated \$300

<sup>1</sup> The number of "plants" or "establishments" will usually be greater than the number of companies or firms, because of the existence of multi-plant companies.

<sup>2</sup> For an appraisal of the method of financing the post-war investment program see *Investment and Inflation*, pp. 148 ff.

<sup>3</sup> The concept of net profits used in the above survey is that of "net income to stockholders", that is, profits after allowance for depreciation, interest payments and tax provisions but before dividend payments to stockholders. Data are from *Statistical Summary*, Bank of Canada, May 1951, p. 79.

<sup>4</sup> These data are the result of a special survey by the Economic Research Division of the Department of Trade and Commerce. See Release of the Department, November 22, 1950, No. 50/50.



million, about 12 per cent of a total of \$2.5 billion estimated to have been invested by all manufacturing industries between 1946 and 1950.

Country of Origin	Companies Commencing Operations <sup>1</sup>		Total Employment in 1950	
	Number	Per cent	Number	Per cent
Canada.....	834	81	24,707	60
United States.....	147	14	10,485	25
United Kingdom.....	34	3	5,877	14
Other Countries.....	16	2	330	1
Total.....	1,031	100	41,399	100

<sup>1</sup> From January 1, 1946 to November 1, 1950.

The most notable growth of new industries in terms of employment provided occurred in transportation equipment production, the clothing industry and the wood and its products industries. New firms entering the manufacturing field were relatively unimportant in the printing, publishing and allied industries, the rubber, leather, tobacco and their products industries, and the chemicals and their products industries (see below).

Another important development was the "filling in" and "rounding out" of Canadian manufacturing industries. This took several forms.

(1) A number of manufacturing firms proceeded to integrate their operations by combining several production stages, from processing to final fabrication. One company which started out as an organization selling chemicals commenced to manufacture calcium chloride, magnesium metal and salts, and other chemicals

Industry	Companies Commencing Operations <sup>1</sup>		Total Employment in 1950	
	Number	Per cent	Number	Per cent
Food and Beverages.....	100	9.7	2,524	6.1
Rubber, Leather and Tobacco and Their Products.....	39	3.8	1,171	2.8
Primary Textiles and Their Products.....	67	6.5	2,121	5.1
Clothing.....	253	24.4	7,458	18.0
Wood and Its Products.....	162	15.7	5,005	12.1
Pulp and Paper and Their Products.....	14	1.4	1,746	4.2
Printing, Publishing and Allied Industries.....	23	2.2	724	1.7
Iron and Steel and Their Products.....	106	10.3	3,490	8.4
Transportation Equipment.....	38	3.7	7,836	19.0
Non-Ferrous Metal Products including Electrical Apparatus and Supplies.....	63	6.1	4,081	9.9
Non-Metallic Mineral Products including Products of Petroleum and Coal.....	49	4.8	1,857	4.5
Chemicals and Their Products.....	44	4.3	1,391	3.4
Miscellaneous.....	73	7.1	1,995	4.8
Total.....	1,031	100.0	41,399	100.0

<sup>1</sup> From January 1, 1946 to November 1, 1950.

and plastics such as polystyrene. Later the company expanded to process some of the basic materials, operating from common salt to produce caustic soda and chlorine. More recently it rounded out its operations by producing a range of ethylene products. In the synthetic rubber field a vertical integration was achieved by adding new facilities to produce polystyrene resins in various forms. In the magnesium field one company expanded from the production of magnesium ingots to turn out a wide range of extrusion products. Another company which previously turned out rolling-mill products proceeded to install a blast furnace and an open hearth to produce in its own plant some of the steel required for fabrication.

(2) Industries increased the range of commodities produced in order to be able to cope better with varying fluctuations in demand for different commodities. For

example, a firm formerly producing only refrigeration equipment expanded to manufacture air-conditioning equipment, steam boilers and steel parts and equipment; a firm producing threshing machines and similar implements expanded to produce industrial boilers, rock crushers, rubber, plastic and ceramic moulds and turbine motors and air compressors; a firm formerly producing washing machines extended its production to include ironing machines, electrical appliances and air circulators.

(3) Greater emphasis was placed on using Canadian resources, particularly waste materials. For example, new plastic products and new types of building boards are now being made from waste pulp.

(4) Industries strove to adopt the latest production processes and use the most effective and up-to-date

equipment, and to turn out newly developed materials and substances. Notable examples are the variety of synthetic yarns coming on the market in the post-war period and the rapid technological advances that have been made in the metallurgical, chemical and electronics fields.

(5) A wide range of new commodities has been produced for the first time in Canada in the post-war period. These include jet aircraft, diesel locomotives, gas turbines, roller bearings, a wide range of automobile parts and various kinds of heavy machinery and equipment, such as special types of pulp machinery, road building equipment, oil well equipment, and heavy agricultural implements.

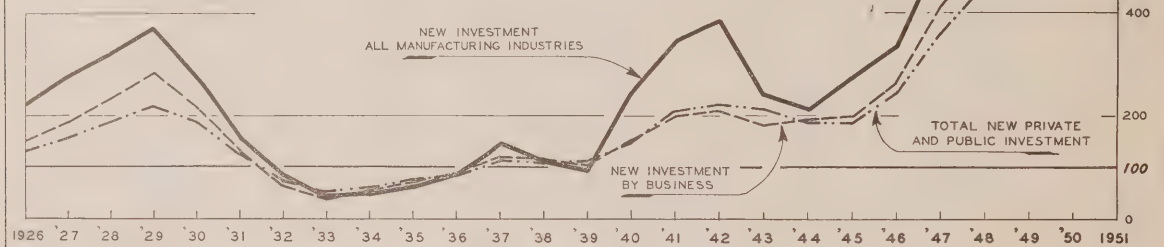
(6) While manufacturing expansion in the larger urban centres was substantial a great deal of expansion also took place in smaller communities. Availability of labour and comparatively low local tax rates have been an inducement for decentralization of industrial growth in the post-war period.<sup>1</sup>

## Trend of Investment

One notable feature of the trend of manufacturing investment is that it has generally followed quite closely the pattern of total private and public investment during the 25-year period reviewed in this report. For example, both investment series show high points in 1929 and 1937 and a low point in 1933. There are, however, some notable exceptions to this apparent conformity. One is the low point for manufacturing investment in 1939 which followed the low point of total private and public investment by one year. Manufacturing investment, after large expansion early in the war, reached a low point in 1944 and increased substantially in 1945 when reconversion to production for peacetime purposes got under way. However, total private and public investment reached its lowest point in 1945, with expansion getting under way in 1946 and continuing until 1950. Still another divergence is apparent in 1949, when estimates indicate a break in the upswing of capital expenditures by manufacturing industries but not for total investment (see Figure 17).

- FIGURE 17 -

### NEW INVESTMENT BY ALL MANUFACTURING INDUSTRIES, BY ALL BUSINESS AND BY ALL PRIVATE AND PUBLIC AGENCIES, CANADA, 1926-1951



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE.

However, the apparent conformity of manufacturing investment as a whole to total investment does not necessarily extend to individual manufacturing industries. Taking five non-war turning points in the changing volume of investment by all manufacturing industries as the basis, a multitude of diverse investment patterns becomes apparent for the twelve industry groups for which reliable pre-war records are available.<sup>2</sup>

The five standard turning points are: a high in 1929, a low in 1933, a high in 1937, a low in 1939 and a high in 1948. Five groups seem to conform to this investment pattern. They are: food and beverages, pulp and paper and their products, iron and steel and their products, non-metallic mineral products including products of petroleum and coal, and chemicals and their

products. Three manufacturing sectors which tend to precede turning points of total manufacturing investment are rubber, leather and tobacco and their products, primary textiles and their products, and wood and its products. Two industry groups, transportation equipment and non-ferrous metal products including electrical apparatus and supplies, seem in part to follow and in part to conform to the general manufacturing investment pattern. Finally, there are two other groups, the clothing industry and the printing, publishing and allied industries—both relying on less capital per worker than the average manufacturing industry—which show an erratic investment pattern, at times leading, at times conforming to, and at times following the course taken by total manufacturing investment (see summary below).

<sup>1</sup> For a survey of the extent to which this program of decentralization has been getting under way in the post-war period, see *Encouragement to Industrial Expansion in Canada*, pp. 39-42 and 71-72.

<sup>2</sup> Excluding the miscellaneous group, for which the investment estimates are derived estimates.

Industry	Non-War Turning Points of New Investment of Manufacturing Industries <sup>1</sup>					Apparent Pattern
	High 1929	Low 1933	High 1937	Low 1939	High 1948	
Food and Beverages.....	C	C	F	C	C	Conforming
Rubber, Leather and Tobacco and Their Products.....	C	L	L	C	L	Leading
Primary Textiles and Their Products.....	L	L	L	C	L	Leading
Clothing.....	C	F	C	L	L	Erratic
Wood and Its Products.....	L	L	C	L	L	Leading
Pulp and Paper and Their Products.....	L	C	C	C	C	Conforming
Printing, Publishing and Allied Industries.....	L	F	C	L	F	Erratic
Iron and Steel and Their Products.....	C	C	C	C	C	Conforming
Transportation Equipment.....	C	C	F	C	F	Following/Conforming
Non-Ferrous Metal Products including Electrical Apparatus and Supplies.....	F	C	C	C	F	Following/Conforming
Non-Metallic Mineral Products including Products of Petroleum and Coal.....	C	C	C	C	C	Conforming
Chemicals and Their Products.....	C	L	C	C	C	Conforming

<sup>1</sup> L—Leading; C—Conforming; F—Following.

Various reasons are suggested for the difference in the apparent investment pattern: varying degrees of sensitivity to short and long-term market prospects, different rates of technological advance and application of innovations, a wide range of business practices and financial strength among industries, dependence on domestic and foreign markets and other factors, all of which are discussed below as the analysis proceeds on an industry basis (see pp. 46 ff).

### Amplitudes of Investment Fluctuations

In the last twenty-five years investment by manufacturing industries underwent on the whole greater

fluctuations than either business investment by all enterprises or total private and public investment. Two outstanding features are the particularly marked decline of manufacturing investment from 1929 to 1933 and the notable expansion from 1939 to 1948. By 1933 manufacturing industries were making capital outlays of about 10 per cent of their 1929 expenditures. By 1948, on the other hand, manufacturing firms were spending six times as much as they had been spending in 1939. Neither the rate of decline nor the rate of increase was matched by other investment aggregates (see below).

Sector	New Investment—Per cent Change					
	1926-29	1929-33	1933-37	1937-39	1939-48	1948-50
Manufacturing Industries.....	+ 69	— 89	+ 234	— 30	+ 488	— 10
All Business Enterprises.....	+ 83	— 85	+ 194	— 12	+ 385	+ 16
Total Private and Public Investment...	+ 66	— 78	+ 153	— 8	+ 315	+ 20

Among the reasons for these notable investment fluctuations are substantial changes in domestic demand, particularly for capital goods, and in foreign demand for both semi and fully manufactured commodities. In

fact, investment by manufacturing industries has fluctuated substantially more than demand for their output, as shown by the various indicators of economic activity in these industries summarized below.

Item	Per cent Change					
	1926-29	1929-33	1933-37	1937-39	1939-48	1948-50
New Investment.....	+ 69	— 89	+234	— 30	+ 488	— 10
Employment.....	+ 19	— 30	+ 41	0	+ 76	+ 1
Gross Value of Production.....	+ 25	— 50	+ 86	— 4	+ 242	+ 18
Exports <sup>1</sup> .....	+ 3	— 47	+ 90	— 7	+ 248	— 1
Imports <sup>1</sup> .....	+ 25	— 68	+ 90	— 5	+ 245	+ 22

<sup>1</sup> Of manufactured goods.

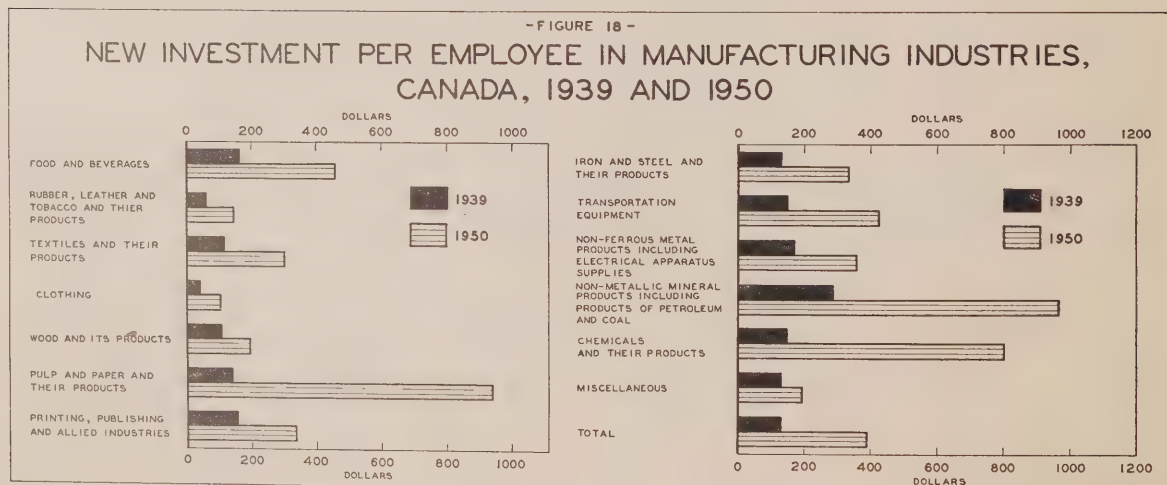


Within the manufacturing sector itself investment fluctuations vary greatly. For example, in the rapid contraction phase from 1929 to 1933 new investment in two groups declined so rapidly as to represent an almost negligible volume of capital outlay at the low point of the depressed thirties. These two groups are the food and beverage industry, and the pulp and paper and their products industries. On the other hand, the primary textiles and their products, the rubber, leather and tobacco and their products, and the wood and its products industries showed the smallest decline of investment in that period. In the protracted expansion phase from 1939 to 1948 the pulp and paper and their products industries and the chemicals and their products industries showed the greatest rise, while the transportation equipment industry, the printing, publishing

and allied industries, and the clothing industry showed the smallest rise in investment. The reasons given earlier for variations in the investment pattern are also applicable to the differences among industries in the amplitude of investment fluctuations.<sup>1</sup>

Variations from industry to industry in amplitude of investment fluctuations have changed their contributions to total manufacturing investment. For example, in 1939 the pulp and paper and their products industries contributed 6 per cent to total manufacturing investment; in 1950 the same industries accounted for 14 per cent of the total. Another manufacturing sector which had been quite insignificant before the war but is playing a considerably more important role in the post-war period is the chemicals and their products group (see below).

Industry	Per cent Distribution of New Investment in Current Dollars		Per cent Change in Relative Importance 1939-1950
	1939	1950	
Food and Beverages.....	18.8	15.4	- 18
Rubber, Leather and Tobacco and Their Products.....	3.2	1.8	- 44
Primary Textiles and Their Products.....	5.7	4.6	- 19
Clothing.....	3.4	2.4	- 29
Wood and Its Products.....	6.8	4.7	- 31
Pulp and Paper and Their Products.....	6.2	13.9	+124
Printing, Publishing and Allied Industries.....	6.1	3.9	- 36
Iron and Steel and Their Products.....	9.6	10.4	+ 8
Transportation Equipment.....	7.5	8.5	+ 13
Non-Ferrous Metal Products including Electrical Apparatus and Supplies.....	7.7	7.1	- 8
Non-Metallic Mineral Products including Products of Petroleum and Coal.....	6.8	8.4	+ 24
Chemicals and Their Products.....	3.4	6.3	+ 85
Miscellaneous.....	1.6	1.0	- 37
Capital Items Charged to Operating Expenses.....	13.2	11.6	- 12
Total.....	100.0	100.0	.....



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<sup>1</sup> See above, p. 43.

## Investment and Employment

In 1950 manufacturing firms spent on an average about \$400 per employee on the expansion and improvement of plant facilities, or about three times as much as they did in 1939. Even allowing for a doubling of investment costs the volume of capital expenditures per employee in the post-war period has risen by close to 50 per cent over pre-war. This is in some measure

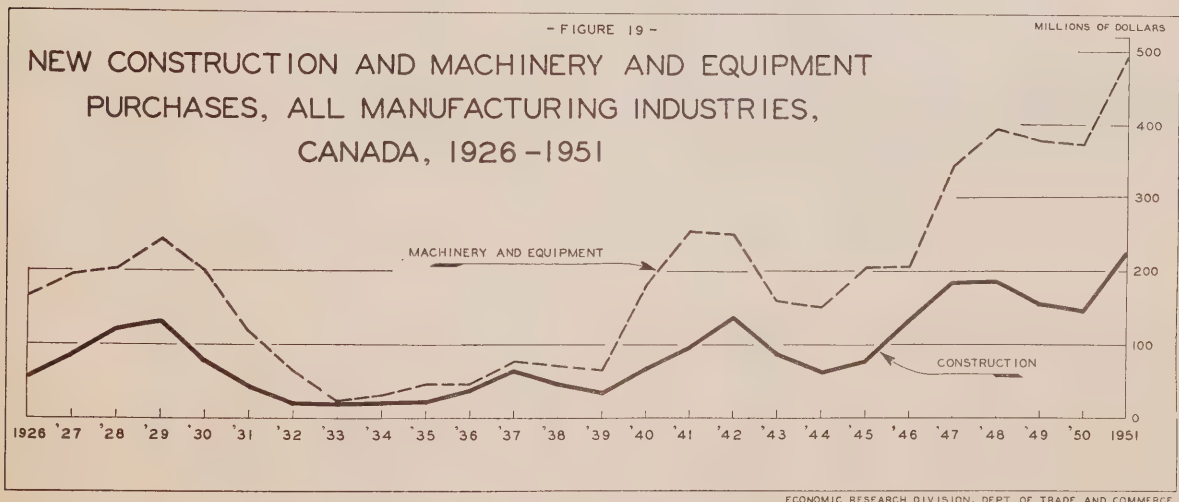
suggestive of the increased capital requirements in relation to the labour force as the process of industrialization in a country broadens and becomes more intensified. Another factor would be the aim of business enterprises to hold down labour costs to a minimum in the face of rising wage payments (see Figure 18). Variations in investment per employee as between manufacturing groups are summarized below.

Industry	New Investment Per Employee—\$		Per cent Change 1939- 1950
	1939	1950	
<i>Current Dollars</i>			
Food and Beverages.....	165	461	+ 179
Rubber, Leather and Tobacco and Their Products.....	60	146	+ 143
Primary Textiles and Their Products.....	117	305	+ 161
Clothing.....	42	107	+ 155
Wood and Its Products.....	106	197	+ 86
Pulp and Paper and Their Products.....	142	939	+ 561
Printing, Publishing and Allied Industries.....	158	342	+ 116
Iron and Steel and Their Products.....	129	337	+ 161
Transportation Equipment.....	151	426	+ 182
Non-Ferrous Metal Products including Electrical Apparatus and Supplies.....	169	359	+ 112
Non-Metallic Mineral Products including Products of Petroleum and Coal.....	291	971	+ 234
Chemicals and Their Products.....	148	800	+ 441
Miscellaneous.....	133	193	+ 45
Total.....	130	392	+ 202
<i>Constant Dollars</i>			
Total.....	126	183	+ 45

## Types of Manufacturing Investment

The emphasis placed by Canadian manufacturing industries in the post-war period on modernization of plant and replacement of obsolete equipment is indicated by the fact that two out of every three dollars spent on new investment went into purchases of new machinery

and equipment (see Table 26). Because machinery and equipment purchases are postponable to a large degree, and because replacement policies of manufacturing industries vary, investment in machinery and equipment has fluctuated more substantially over the last twenty-five years than new plant construction (see Figure 19).



## Analysis by Manufacturing Sectors

So far the investment analysis has concentrated on manufacturing as a whole, emphasizing the great diversity of behaviour among individual industry groups. The remainder of this chapter summarizes briefly what expansion and contraction have meant for each of the major industry groups. Each industry analysis commences with a short statement defining the coverage

of the industry, followed by an appraisal of its size and growth, and concludes with a discussion of levels and pattern of new investment and amplitudes of investment fluctuations. To keep the appraisal of investment by individual manufacturing industries as brief as possible, capital expenditures as a whole are referred to in the succeeding text. The reader interested in a breakdown between construction and machinery and equipment purchases will find these data in Part II.

## FOOD AND BEVERAGE INDUSTRY

*Coverage of Industry.* The food and beverage industry, also described as the animal and vegetable products industry—food group, comprises seven major sectors: meat products (including slaughtering and meat packing), dairy products (including butter, concentrated milk, cheese and other dairy products), canning and preserving (covering fish, vegetables and fruits), grain mill products (involving flour, feed and breakfast foods), bakery products (including bread, biscuits and other bakery products), beverages (covering carbonated drinks, distilled and malt liquors and wines), and miscellaneous foods (consisting of a variety of items such as confectionery, molasses, fruit juice extracts, corn syrup and processes such as rice milling and yeast manufacturing). While variations in relative prices may affect the importance of the various sectors in the industry, meat products are usually the leading group, making up about one-quarter of the total value of output by the industry. Grain mill products and dairy products follow in importance.<sup>1</sup>

*Size and Growth of Industry.* The industry is the largest manufacturing group in terms of the number of persons employed and gross value of production. It operates some 8,600 plants employing over 170,000 people and in 1950 gross value of production amounted to about \$3 billion. In terms of net value of production the industry contributed 15 per cent of total manufacturing output, a proportion exceeded only by the iron and steel and their products industries. About one-quarter of the number of enterprises in the industry are corporate entities, accounting for about four-fifths of the employment. The remaining business is being conducted by individuals, partnerships and co-operatives. Less than ten per cent of domestic requirements for food and beverage products is met by imports. The industry, which in the early post-war years used to export up to

one-quarter of its output, more recently has had to rely to a greater extent on the domestic market. In 1950 exports amounted to only 13 per cent of domestic production (see below).

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	876	69	141	804
1946.....	2,041	132	461	1,712
1947.....	2,384	185	493	2,076
1948.....	2,840	190	458	2,572
1949.....	2,872	194	367	2,699
1950.....	3,067	169	403	2,833

In terms of both employment and the volume of production, activity in the industry has risen by over 50 per cent since 1939. This has been accomplished in spite of an overall reduction of about 5 per cent in the number of operating establishments. Further, the growth of this industry has not kept up with the expansion of manufacturing as a whole. In 1939, for example, the food and beverage industry made up 20 per cent of the net value of manufacturing production, but by 1950 its contribution had declined to 15 per cent, as the figures below indicate. This is explained in part by the fact that any increase in domestic consumption of food and beverages as a whole is governed by long-run factors such as population growth, while the demand for other manufactured articles is influenced to a greater extent by their sales appeal and degree of substitution and interchangeability, and the ability of consumers to purchase new commodities.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>2</sup>	No.	Per cent <sup>2</sup>	Thous.	Per cent <sup>2</sup>	\$ Mill.	Per cent <sup>2</sup>	\$ Mill.	Per cent <sup>2</sup>
1939.....	18.5	18.8	9,078	36.6	112	17.0	876	25.2	304	19.8
1946.....	53.1	15.7	8,862	28.4	161	15.2	2,041	25.4	604	17.4
1947.....	82.8	15.7	8,869	27.1	168	14.9	2,384	23.6	695	16.2
1948.....	88.4	15.3	8,686	26.0	169	14.6	2,840	23.9	766	15.5
1949.....	78.7	14.7	8,560	24.8	171	14.7	2,872	23.2	837	15.8
1950.....	79.8	15.4	8,575	24.3	173	14.8	3,067	21.9	892	14.8

<sup>1</sup> For an appraisal of the bread baking, butter, livestock and meat, and fruit and vegetables industries, see *Report of the Royal Commission on Prices*, Vol. III, pp. 15-122.

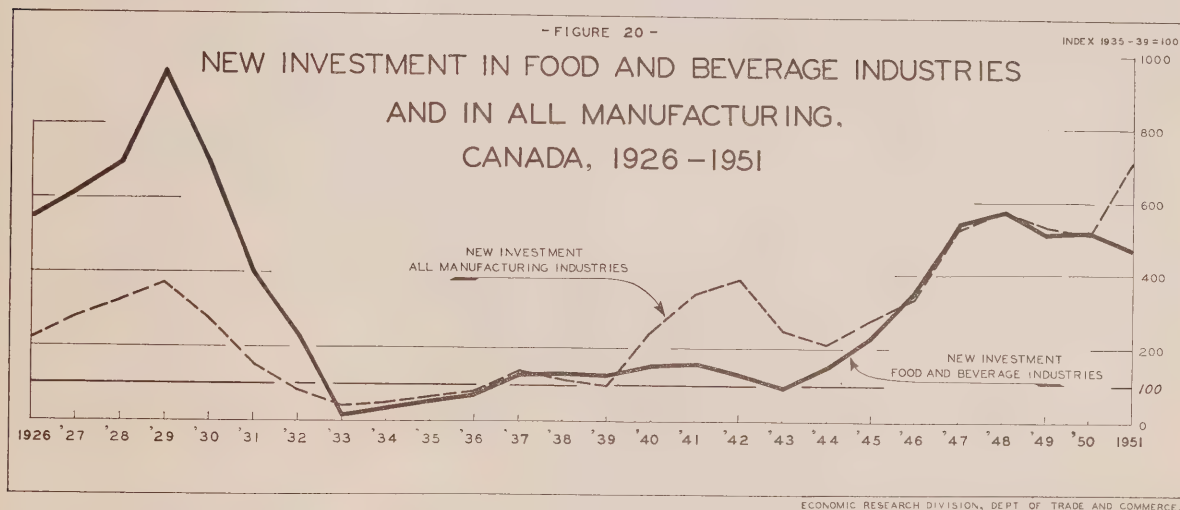
<sup>2</sup> Of total manufacturing.



*Investment by Industry.* Capital expenditures by the industry averaged \$76 million per year during the post-war period, contributing 15 per cent to manufacturing investment, or about the same proportion as the industry contributed to the net value of manufacturing production. Repair and maintenance expenditures averaged \$39 million in the same period, so that the industry as a whole spent on an average \$115 million annually on the expansion, maintenance and repair of its plant and equipment in the last five years. Most of this money was spent on the erection of new factories and mills and the re-equipment and modernization of existing establishments. Substantial outlay was also involved in providing plant and equipment for some one hundred new firms each employing ten or more persons, which have come into operation since the beginning of 1946 and which have created approximately 2,500 new jobs in the industry (see p. 41). New plants built and equipped in the post-war period covered a great variety of enterprises. They ranged from a \$3,000 cheese factory in a small Ontario village to a more than \$2 million biscuit manufacturing plant in one of Canada's metropolitan cities. Annual capital expenditures involving over a million dollars were numerous. They included

such projects as a new flour mill, a chocolate plant and a brewery in Quebec, and a bakery, a candy plant, a soft drink establishment and a distillery in Ontario. While capital expenditures of this industry in the Maritimes and the western provinces were on a smaller scale, they were still substantial. Large projects were undertaken for meat packing plants in Alberta and British Columbia, in dairying in Saskatchewan and Nova Scotia, and for a biscuit factory in New Brunswick.

*Trend of Investment.* As may be expected, the investment pattern of the food and beverage industry follows closely the investment pattern of all manufacturing industries, of which it is an important sector. Turning points of the investment series for this industry are identical with those of total manufacturing investment for all years except 1937. The year of peak investment in the late thirties in the food and beverage industry appears to be 1938, but the difference between 1937 and 1938 is quite small, so that in fact a levelling off of investment in these two years is indicated. While there appears to exist a certain degree of conformity in the turning points of investment fluctuations in this industry and in manufacturing as a whole, this is not the case in terms of amplitude (see Figure 20).



*Amplitudes of Investment Fluctuations.* Annual changes in the value of investment by the industry were more substantial than those of total manufacturing investment before the war. During the war and in the immediate post-war period, however, they were less pronounced, as the following data indicate.

Period	New Investment—Per cent Change	
	Food and Beverage Industries	All Manufacturing Industries
1926-1929.....	+ 73	+ 69
1929-1933.....	- 98	- 89
1933-1937.....	+579	+234
1937-1939.....	- 3	- 30
1939-1948.....	+378	+488
1948-1950.....	- 10	- 10

Profits in the industry doubled between 1939 and 1948, with moderate declines registered in 1949 and 1950. Prices of food products more than doubled in the last decade. With firm domestic and, more recently, foreign demand, the latter particularly in the United States, expansion and improvement of plant and equipment continued at high levels in the post-war period.

Year	Net Profits of 42 Companies \$ Mill.	Consumer Price Index
1939.....	16.5	100
1946.....	24.3	140
1947.....	29.3	159
1948.....	33.1	194
1949.....	29.0	202
1950.....	27.7	210

## RUBBER, LEATHER AND TOBACCO AND THEIR PRODUCTS INDUSTRY

*Coverage of Industry.* The animal and vegetable non-food group of industries consists of three major manufacturing sectors: (1) tobacco and tobacco products, (2) rubber and rubber products and (3) leather and leather products. Each of these industries in turn is made up of a diverse group of manufacturing concerns, whose common denominator is mainly the identity or similarity of the raw material used. For example, the leather and leather products industry is frequently again divided into three groups: (a) the leather tanning industry, which cures hides to produce leather, (b) the boot and shoe industry and (c) the other leather products industries which produce a variety of leather goods, from gloves and handbags to harnesses and instrument cases.<sup>1</sup> The rubber and rubber products industry includes such manufactured items as (a) tires and tubes, (b) rubber footwear and (c) miscellaneous rubber products such as hose, gloves, mats and flooring.<sup>2</sup> Before the war the tobacco and tobacco products and the rubber and rubber products industries each contributed 32 per cent, and the leather and leather products industry contributed the remaining 36 per cent to the total value of production of the industry group as a whole. In the post-war period, however, the relative

importance of the rubber and rubber products industry increased (see below).

Industry	Gross Value of Production			
	1939		1950	
	\$ Mill.	Per cent	\$ Mill.	Per cent
Rubber and Rubber Products.....	70	32	375	50
Leather and Leather Products.....	81	36	188	26
Tobacco and Tobacco Products.....	70	32	181	24
Total.....	221	100	744	100

*Size and Growth of Industry.* This group of industries operated about 900 plants in 1950, employing some 65,000 people, producing a total gross value of output of \$744 million and contributing 5.9 per cent to the total net value of manufacturing production. About half the

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	3.1	3.2	759	3.1	52	7.9	221	6.4	102	6.7
1946.....	12.8	3.8	931	3.0	70	6.6	472	5.9	216	6.2
1947.....	16.5	3.1	943	2.9	70	6.2	556	5.5	247	5.8
1948.....	12.1	2.1	892	2.7	66	5.7	552	4.6	252	5.1
1949.....	11.1	2.1	881	2.6	66	5.7	562	4.5	253	4.8
1950.....	9.5	1.8	885	2.5	65	5.6	744	5.3	357	5.9

<sup>1</sup> Of total manufacturing.

number of firms in this industry group are corporate enterprises and they do over nine-tenths of the business. These industries have grown less rapidly than most other manufacturing industries. In 1939 they provided employment for about 8 per cent of all persons working in manufacturing industries. By 1950 this proportion had declined to 6 per cent (see above) in spite of the fact that some 40 new large and medium-sized firms were established in Canada in the post-war period, providing an additional 1,200 jobs.

The domestic market is the chief outlet for the products of the animal and vegetable non-food industries. In 1950 imports amounted to only 5 per cent of domestic supply while exports accounted for less than 3 per cent of domestic production (see below).

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	221	11	24	208
1946.....	472	25	33	464
1947.....	556	29	48	537
1948.....	552	25	39	538
1949.....	562	28	20	570
1950.....	744	36	20	760

*Investment by Industry.* The rubber products industry is as significant a factor in manufacturing investment as the other two industries taken together, as

<sup>1</sup> For a discussion of the coverage of the industry and its structure, see *Report of the Royal Commission on Prices*, Vol. III, pp. 181 ff. and 203 ff.

<sup>2</sup> Production of synthetic rubber could be included in the rubber and rubber products industry. However, since Polymer Corporation, Canada's major source of synthetic rubber, also produces or is associated with the production of other synthetic materials, plastics, etc., investment activity by this corporation is covered in the chemicals and their products industries.

the figures below show. Modernization and expansion of existing plant facilities by firms producing rubber tires and tubes and parts and accessories for motor vehicles are mainly responsible for the large post-war capital outlay. Total investment by the industry group as a whole averaged \$12 million per year during the post-war period. Repair and maintenance involved another \$10 million, so that total expenditures on the expansion and maintenance of plant and equipment in these industries involved an annual average outlay of \$22 million (see below). Post-war investment programs in both the rubber and the tobacco industries are typically large-scale and are concentrated in Ontario and Quebec. They include such projects as plant expansion, involving annual outlays of over a million dollars by a tobacco manufacturer in Quebec and over \$2 million by a maker of tires and tubes in Ontario. Investment projects in the leather industry, on the other hand, are typified by relatively small individual outlays spread throughout the country. These programs would cover expenditures by shoe companies in Quebec and New Brunswick, tanneries in Ontario, glove makers in Manitoba and luggage manufacturers in British Columbia. The amounts expended would range from \$1,000 by a glove manufacturer to \$300,000 by an operator of a tannery.

New Investment—Millions of Dollars

Industry	1946	1947	1948	1949	1950
Rubber and Rubber Products.	7.5	10.2	6.0	6.4	4.7
Leather and Leather Products.	3.2	3.2	3.4	2.7	2.3
Tobacco and Tobacco Products	2.1	3.1	2.7	2.0	2.5
Total.....	12.8	16.5	12.1	11.1	9.5

*Trend of Investment.* Because of the smallness of capital outlay by this industrial group, about 2 per cent of the annual total for the manufacturing sector, it has had little effect on the total volume of manufacturing investment in the past. Investment by these industries shows a tendency to precede investment by all manufacturing industries, indicating great sensitivity of the former group to changes in market prospects. This

was the case in 1933, 1937 and 1948. In two other years, 1929 and 1939, the investment pattern of this industrial group conformed to the investment pattern of all manufacturing industries.

*Amplitudes of Investment Fluctuations.* On the whole investment by this industry fluctuated less severely than investment by all manufacturing groups. However, there are exceptions to this, as in the period of rapid growth from 1926 to 1929 (see data below and Figure 21).

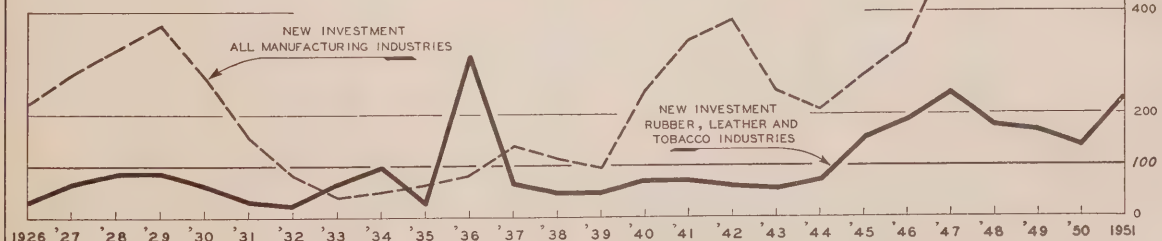
Period	New Investment—Per cent Change	
	Rubber, Leather and Tobacco and Their Products Industries	All Manufacturing Industries
1926-1929.....	+177	+ 69
1929-1933.....	- 28	- 89
1933-1937.....	- 5	+234
1937-1939.....	- 26	- 30
1939-1948.....	+290	+488
1948-1950.....	- 21	- 10

Capital expenditures by the industry in the post-war period, while not increasing as rapidly as those of most other manufacturing industries, were still substantially higher than before the war. Profits in the industry reached a peak in 1947, as did expenditures on the expansion and modernization of production facilities. Prices of leather and leather products rose more sharply than did the prices of products of the other two sectors, as the following figures indicate.

Year	Net Profits of 15 Companies \$ Mill.	Wholesale Price Index		Consumer Price Index of Tobacco Products
		Rubber and Rubber Products	Leather and Leather Products	
1939.....	9.6	100	100	100
1946.....	11.9	126	117	143
1947.....	16.8	124	148	149
1948.....	14.1	120	181	158
1949.....	10.0	123	180	167
1950.....	15.1	174	197	170

- FIGURE 21 -

## NEW INVESTMENT IN RUBBER, LEATHER AND TOBACCO AND THEIR PRODUCTS INDUSTRIES AND IN ALL MANUFACTURING, CANADA, 1926 - 1951





## PRIMARY TEXTILES AND THEIR PRODUCTS INDUSTRY

*Coverage of Industry.* The primary textiles and their products industry<sup>1</sup> covers all textile industries in Canada except the clothing industry, the latter including hosiery and knitted goods. The primary textile industry producing cotton, woollen and synthetic textiles is responsible for somewhat more than one-half of the value of the output of the industry group as a whole. The remainder is made up of a multitude of textile products other than clothing. These include carpets, parachutes, jute bags, sails, curtains, blankets, linen goods, silk fabrics, window awnings and cordage, rope and twine. Thus the industry is made up of suppliers of a mixture of both semi-processed materials and finished products. The industry therefore sells its products to other manufacturers as well as to wholesale and retail outlets (who in turn sell primarily to consumers), governments and foreign buyers.

*Size and Growth of Industry.* At the end of 1950 the primary textiles and their products industries operated about 900 establishments, employing some 78,000 men and women and producing an output of about \$718 million worth of materials and articles during the year. The net value of output of the industry was more than \$300 million, or about 5 per cent of the total net value of manufacturing production in Canada in 1950. About three-fifths of the number of firms operating in this field were incorporated companies, responsible for approximately 95 per cent of the total output and concentrated in the provinces of Quebec and Ontario. The industry primarily serves the domestic market, with only about 3 per cent of its output being exported. As the figures above show, Canadian requirements are largely met by domestic production. Imports generally supply about one-quarter of total demand for primary textiles and textile products other than clothing.

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	183	56	7	232
1946.....	400	167	25	542
1947.....	510	258	31	737
1948.....	609	267	28	848
1949.....	626	200	19	807
1950.....	718	186	22	882

Like most other manufacturing industries this industry has grown rapidly in the last decade. From 1939 to 1950 the number of plants more than doubled. Employment and output in *volume* terms rose by more than 60 per cent. If no allowance is made for price changes, gross value of production by the industry was about four times as large in 1950 as in 1939. In this period, the development of new commodities, the introduction of new techniques and processes, as well as the rapid growth of the domestic market stimulated expansion of the industry. Manufacture of rayon was expanded and production of nylon yarn and nylon products was first undertaken. Canadian producers now supply the bulk of Canadian synthetic raw material requirements. Expansion of the industry is reflected in the large capital expenditures made by manufacturers (see below) and by the number of new firms entering the textile business. Since the beginning of 1946 some 67 new textile companies of medium and large size have come into operation, providing employment for about 2,100 workers, thus contributing another 3 per cent to employment in the industry.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>2</sup>	No.	Per cent <sup>2</sup>	Thous.	Per cent <sup>2</sup>	\$ Mill.	Per cent <sup>2</sup>	\$ Mill.	Per cent <sup>2</sup>
1939.....	5.6	5.7	434	1.7	48	7.3	183	5.3	84	5.5
1946.....	24.6	7.3	711	2.3	67	6.3	400	5.0	177	5.1
1947.....	36.6	6.9	735	2.2	73	6.5	510	5.1	213	5.0
1948.....	35.6	6.1	750	2.2	77	6.7	609	5.1	266	5.4
1949.....	32.1	6.0	847	2.5	77	6.6	626	5.1	281	5.3
1950.....	23.8	4.6	900	2.6	78	6.7	718	5.1	322	5.3

<sup>1</sup> The industry is described in the *Standard Industrial Classification Manual* as "Textile Products (except Clothing)." The distinction commonly made in business practice is between the primary and secondary textile industries. The former covers the preparation of raw materials for the production of yarn, spinning or extruding the yarn, weaving, finishing and dyeing yarn as fabrics, or knitting the yarn and completing the manufacture of knitted articles. Secondary textiles includes mainly the cutting and sewing of woven fabrics to produce garments or articles. The chief difference between these two methods of classification is that the *Standard Industrial Classification Manual* (followed in this study) includes hosiery and knit goods with the Clothing Industry, and some miscellaneous fabricated items, such as carpets, canvas goods, cotton and jute bags, blankets, etc., in Textile Products (except Clothing). See *Report of the Royal Commission on Prices*, Vol. III, p. 125 and *Standard Industrial Classification Manual*, pp. 68-76.

<sup>2</sup> Of total manufacturing.

*Investment by Industry.* This development of the industry involving expansion, modernization and re-equipment of existing establishments and the entry of a number of new firms into the field intensified investment activity in the post-war period. During World War II the industry spent an average of \$8 million annually on new construction and the purchase of machinery and equipment. This capital outlay was above the level of corresponding expenditures of the thirties and approximated those of the late twenties. It was induced mainly by military exigencies, which required greater output of textiles and textile products. Capital expenditures of the first four post-war years averaged \$32 million annually, four times as great as those of the war period. Only in 1950, with most of the immediate and urgent post-war expansion and modernization achieved, did investment outlay decline to \$24 million. The great emphasis textile firms place on the most up-to-date and efficient equipment is indicated by the fact that in the post-war period three out of every four dollars spent by the industry were for machinery and equipment. Only one dollar in four was invested in the erection of new buildings or extension and improvement of existing buildings. The maintenance outlay has been running at about \$19 million in the last few years. As a result, the industry has been spending on the expansion, replacement and maintenance of its plants in excess of \$50 million annually during most of the post-war years (see Table 29).

In the post-war period investment outlays in the primary textile industry have included large sums being spent by establishments producing synthetic textiles. Two manufacturers have each invested over \$2 million in every post-war year, the annual outlay on one such establishment reaching \$7 million in a single year. Substantial investment programs, although on a somewhat smaller scale, have also been carried out by the manufacturers of cotton yarns. Typical investment outlays in other segments of the industry would include over \$200,000 by a thread maker, \$250,000 by a manufacturer of cotton batting, \$500,000 by a maker of woollen fabrics, \$600,000 by an oilcloth company and \$200,000 by a dyeing and finishing concern. While the bulk of the investment is being made in Quebec and Ontario, important projects are also undertaken in other provinces, involving capital outlay ranging from \$100,000 to \$700,000 each by a yarn manufacturer in Nova Scotia, a synthetic textile producer in New Brunswick, a bag manufacturer in Manitoba, and a British Columbia business man manufacturing woollen cloth.

*Trend of Investment.* Notable changes in the volume of capital expenditures by the industry are indicated for the period under review. High points of the investment series in peacetime years are 1927, 1931, 1935, and 1947. Low points are 1929, 1932 and 1939, omitting the starting and ending points of the series. These dates precede the turning points of investment by all manufacturing industries in every instance except 1939. One noteworthy divergence is indicated by the 1929-1931 pattern. While for manufacturing as a whole

only two pre-war investment peaks are recorded, this industry shows three, suggesting fluctuations of investment of a shorter duration than appears to be the case in most other sectors of manufacturing. In fact the industry appears to lead most other manufacturing industries in periods of both expansion and contraction. Explanations that have been offered for this investment pattern include: (1) the sensitivity of the industry to changing market conditions and its attempt either to anticipate or to induce changes in the pattern and level of consumer demand; (2) technological developments in this industry, such as the introduction of rayon and nylon fabrics influenced by dictates of fashion and keen competition, frequently necessitating replacement of equipment before either its usefulness is exhausted or it is fully written off; (3) the fact that when markets are expanding Canadian textile manufacturers can introduce new facilities more rapidly than many others because of the ready access to American sources of up-to-date equipment. It is particularly in such periods that textile firms show great interest in catching up with standards of mechanization already achieved in other industries.

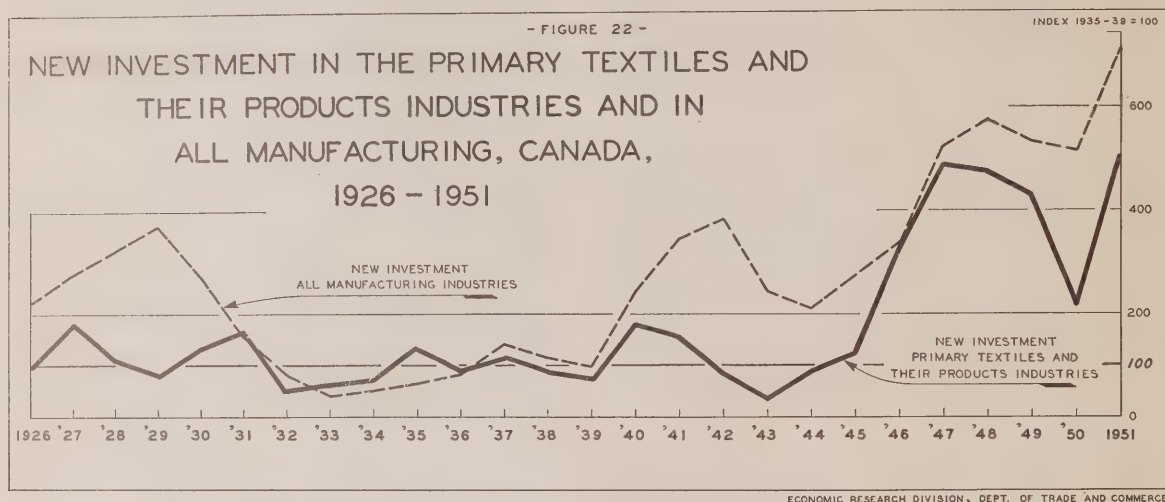
*Amplitudes of Investment Fluctuations.* Except for the war and post-war period the amplitudes of investment fluctuations in the industry have been more moderate than those of most other manufacturing industries (see Figure 22). The principal exception is the rapid expansion of capital outlay in the decade of the war and immediate post-war period, when investment by this industry rose and fell more rapidly than that of all manufacturing groups taken together. This is indicated in the following table.

Period	New Investment—Per cent Change	
	Primary Textiles and Their Products Industries	All Manufacturing Industries
1926-1929.....	+ 17	+ 69
1929-1933.....	- 25	- 89
1933-1937.....	+ 96	+234
1937-1939.....	- 36	- 30
1939-1948.....	+536	+489
1948-1950.....	- 33	- 10

Among the reasons for the lesser fluctuations in the inter-war period is the fact that many of the goods which the industry produces are necessities. Consumers' expenditures on them therefore have a higher degree of priority in periods of low employment and income and expand less rapidly than expenditures on producers' goods and consumer durables when conditions have been improving for some time. Since export outlets are relatively unimportant, output and investment are not determined by sales abroad to the same extent as in other

lines of manufacturing. The introduction of protective tariffs in 1932 and the subsequent steady growth in rayon goods production also tended to support new investment over a period of years. The development of synthetic yarns, the introduction of more efficient processes, the need for replacing most of the equipment worn out during the war years, and an increasing share of the domestic market account for the extraordinary expansion of the physical plant of the primary textiles and their products industries in the post-war period. Rising prices and larger profits facilitated expansion of capacity (see below).<sup>1</sup>

Year	Net Profits of 24 Companies \$ Mill.	Wholesale Price Index
1939.....	5.7	100
1946.....	7.7	139
1947.....	10.0	182
1948.....	13.4	219
1949.....	13.9	225
1950.....	15.6	249



## CLOTHING INDUSTRY

**Coverage of Industry.** The clothing industry covers production of both textile and fur wear. Included are manufacturers of men's, women's and children's clothing, hosiery and other knit goods, and of a variety of miscellaneous clothing such as fur goods, hats, caps, belts, gloves, aprons, and rubberized clothing. Production of men's, women's and children's clothing is responsible for three-fifths of the output of the industry, and the knit goods and the miscellaneous clothing group about one-fifth each.

**Size and Growth of Industry.** The industry consists of a large number of small-scale businesses and a few large firms operating mainly in Quebec and Ontario. A smaller group, specializing in sportswear and work clothing, is located in Winnipeg, Manitoba. This segment of the industry has grown particularly rapidly in recent years. In spite of this tendency towards decentralization distance to sources of supply has remained a major buying problem, particularly as far as seasonal wear is concerned.

In 1950 clothing was being produced in Canada in over 3,000 establishments, employing about 114,000 persons. About three-fifths of these were women.<sup>2</sup> Gross value of production of the industry in the same year is estimated at about \$700 million, and net value in the neighbourhood of \$337 million, or 6 per cent of

the total net value of production of Canadian manufacturing industries. Close to one-half of the clothing manufacturers were operating as incorporated companies and doing over three-quarters of the industry's business. The remaining business was in the hands of firms either owned by individuals or operating as partnerships. The industry is almost fully dependent on the domestic market; export sales accounted for less than one per cent of the total business of the industry in 1950. Competition from ready-made clothing brought in from abroad is not important in aggregate, amounting to only 3 per cent of domestic supply in Canada in 1950 (see below). However, certain lines such as men's woollen hose, sweaters, gloves and sportswear are brought into Canada in sizeable quantities.

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	230	9	3	236
1946.....	551	20	29	542
1947.....	615	33	18	630
1948.....	707	19	16	710
1949.....	718	20	5	733
1950.....	693	23	6	710

<sup>1</sup> Report of the Royal Commission on Prices, Vol. III, pp. 155-157.

<sup>2</sup> For a more detailed appraisal of the structure of the clothing industry, see Report of the Royal Commission on Prices, Vol. III, pp. 226-228.



In the period 1939 to 1950 the number of clothing manufacturing establishments rose by about two-thirds and employment provided by the industry by approximately one-half. This suggests that many of the new firms established in the industry in post-war years have been small-scale entrepreneurs. Further, the growth of the industry, while notable, was not as rapid as that of many other manufacturing industries. This

is indicated by the fact that the clothing industry contributed a smaller proportion to total manufacturing employment and the gross value of manufacturing production in 1950 than in 1939, as the data below show. Since 1946 over 250 medium-sized and large firms, that is, companies employing more than 10 persons, have commenced operations. These companies have provided added employment for about 7,500 people.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	3.3	3.4	1,880	7.6	78	11.8	230	6.6	106	6.9
1946.....	8.4	2.5	2,988	9.6	106	10.0	551	6.9	263	7.6
1947.....	14.0	2.7	3,121	9.5	110	9.7	615	6.1	301	7.0
1948.....	12.3	2.1	3,099	9.3	114	9.9	707	6.0	342	6.9
1949.....	13.7	2.6	3,058	8.9	115	9.9	718	5.8	349	6.6
1950.....	12.2	2.3	3,075	8.7	114	9.7	693	5.0	337	5.6

<sup>1</sup> Of total manufacturing.

*Investment by Industry.* During the post-war period the clothing industry spent an average \$12 million per year on new construction and machinery and equipment and \$7 million on repair and maintenance, or a total of \$19 million (see Table 30). Since this industry is much less mechanized than most other manufacturing industries and requires a great deal of manual labour, it is not surprising that capital outlay by clothing manufacturers contributed less than 3 per cent of total manufacturing investment in post-war years. On the other hand, the industry provided about 10 per cent of total manufacturing employment and was responsible for some 6 per cent of the total gross output of Canadian manufacturing industries. New investment in the clothing industry is not characterized by the outlay of very large sums of money by individual establishments. Typical investment expenditures would include \$3,000 by a blouse manufacturer in Quebec, \$5,000 by a shirt maker in Ontario, \$5,000 by a fur dresser in Manitoba and \$2,000 by a pants manufacturer in Nova Scotia. However, some segments of the industry have been spending substantial sums on new plant and equipment in the post-war years. This is true particularly of the women's hosiery industry, where annual outlays by individual establishments have reached nearly half a million dollars in Quebec and over \$100,000 in Ontario. In other parts of the industry large investment projects have been carried out by such enterprises as glove making, manufacture of fur goods, and hat making, all located in Central Canada.

*Trend of Investment.* Before the war, except for three years, capital expenditures in the industry were quite small and followed a rather erratic pattern. They conformed to the pattern of manufacturing investment as a whole at the high points of 1929 and 1937, but investment in this industry recorded low points in 1935 and 1938 instead of 1933 and 1939 (see

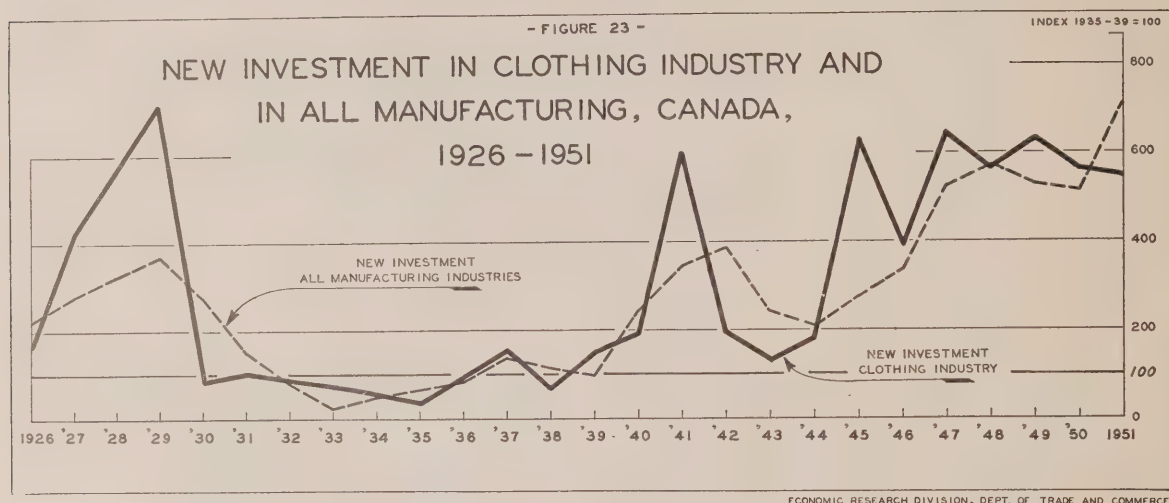
Table 30). In the post-war period a peak was reached in 1947, preceding by one year a turning point of investment by total manufacturing. The clothing industry's market is domestic, and in peacetime depends almost exclusively on consumer demand. The fact that clothing expenditures, with the exception of seasonal and fashionable wear, are more stable than outlays on many other manufactured commodities seems to be outweighed as a determinant of investment by the fact that in the clothing industry the small firm predominates. These small operators not only have smaller individual investments in fixed assets than do most other manufacturing companies, but also tend to enter and leave the industry somewhat more readily in the face of changing market conditions. For these reasons investment in the clothing industry does not conform closely to the pattern for total manufacturing.

*Amplitudes of Investment Fluctuations.* As the data below show, capital outlay by the industry fluctuated more substantially than total manufacturing investment in the period 1926 to 1929, but varied less widely in the period 1933 to 1950 (see Figure 23).

Period	New Investment—Per cent Change	
	Clothing Industry	All Manufacturing Industries
1926-1929.....	+ 343	+ 69
1929-1933.....	- 89	- 89
1933-1937.....	+ 100	+ 234
1937-1939.....	- 3	- 30
1939-1948.....	+ 273	+ 488
1948-1950.....	- 1	- 10

Among the reasons for a higher level of capital expenditures in the post-war period has been the need to meet a substantial backlog of deferred wartime demands, a larger domestic market, and substantially higher profits than those prevailing in the inter-war period. Clothing prices rose steadily after 1945. Indeed, they have increased more rapidly than those of most other items included in the cost-of-living index, except food.<sup>1</sup> However, until recently operating costs have not increased at a comparable rate and additional funds have become available for new investment.

Year	Net Profits of 16 Companies \$ Mill.	Consumer Price Index
1939.....	1.0	100
1946.....	2.3	125
1947.....	2.5	143
1948.....	2.3	173
1949.....	1.9	182
1950.....	1.7	181



## WOOD AND ITS PRODUCTS INDUSTRY

*Coverage of Industry.* This industrial grouping covers the operations of saw and planing mills and the manufacture of furniture<sup>2</sup> and miscellaneous wood products, including boxes, baskets, crates, frames, rods and a variety of household goods like trays, washboards and garment hangers. By far the largest segment comprises saw and planing mills operations, which contribute about two-thirds of the output of this industry.

*Size and Growth of Industry.* The industry contains the largest number of operators of any of the manufacturing groups. In 1950 there were over 11,600 establishments in operation, employing some 124,000 people and producing over a billion dollars worth of lumber products of various kinds. The industry contributed about 8 per cent to total manufacturing net value. Although the proportion of firms operating as corporate enterprises was comparatively small, less than 20 per cent, they were responsible for about three-quarters of the business of the industry. A large share of the Canadian output goes to the domestic market, although purchases by foreigners are also important. Exports amounted to over one-third of production in 1950. Imports comprise only 2 per cent of domestic consumption (see below).

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	188	8	66	130
1946.....	560	18	168	410
1947.....	771	29	275	525
1948.....	839	17	257	599
1949.....	824	23	199	648
1950.....	1,010	15	348	677

The heavy demand for lumber products in the post-war period was responsible for the entry of a large number of operators into the field. In fact, their number more than doubled in the period from 1939 to 1950. Employment, however, increased by a somewhat smaller proportion, suggesting that many of the new firms were small-scale operators (see below). Only about 160 new firms which have come into operation since 1945 have reported employment of 10 or more persons each. These companies provided over 5,000 jobs, or an average of 30 employees per plant.

<sup>1</sup> Report of the Royal Commission on Prices, Vol. III, p. 225.

<sup>2</sup> Including metal furniture.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	6.7	6.8	5,620	22.7	63	9.6	188	5.4	89	5.8
1946.....	20.4	6.0	8,846	28.3	105	9.9	560	7.0	256	7.4
1947.....	32.1	6.1	9,744	29.8	120	10.6	771	7.6	365	8.5
1948.....	26.4	4.6	10,490	31.4	124	10.7	839	7.1	401	8.1
1949.....	26.7	5.0	11,215	32.6	120	10.3	824	6.7	398	7.5
1950.....	24.4	4.7	11,650	33.1	124	10.6	1,010	7.2	488	8.1

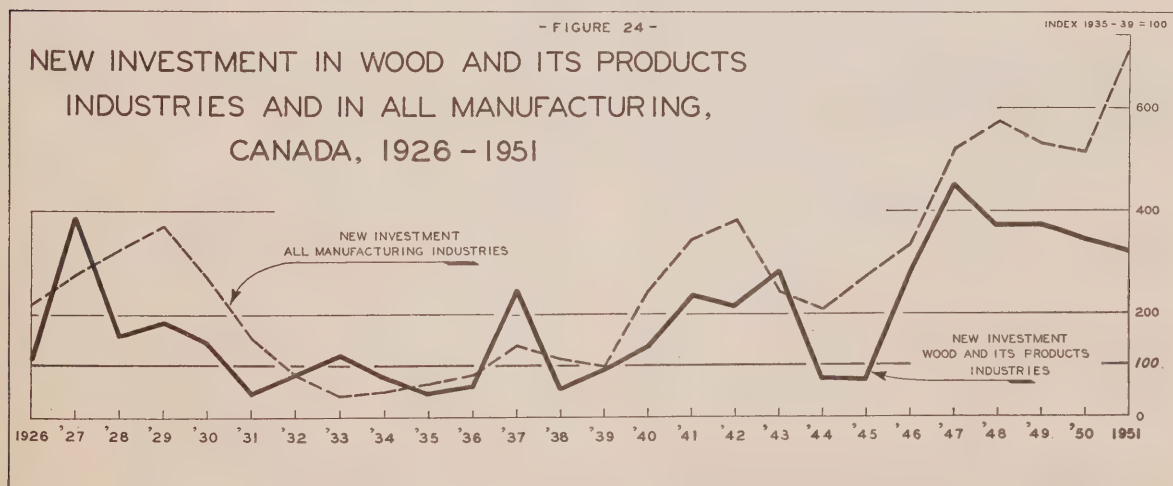
<sup>1</sup> Of total manufacturing.

*Investment by Industry.* Reflecting the small scale on which most operators in the industry carry on business, capital expenditures in the industry are considerably smaller than similar outlay by most other manufacturing industries. In 1950, for example, capital outlay amounted to 5 per cent of total manufacturing investment, while employment and the gross value of production comprised 11 and 7 per cent respectively of the manufacturing total. Compared, however, with pre-war years, manufacturers of wood products made substantial expenditures, reflecting their endeavours to replace worn-out equipment and to introduce new machinery and processes. Capital expenditures averaged \$26 million a year during 1946 to 1950, and repair and maintenance outlay \$22 million, or a total of \$48 million annually. In terms of new investment the industry spent about four times as much in the post-war period as in 1939 (see Table 31). Some of the largest individual post-war projects involved the construction and expansion of plants producing plywood and veneers. Other large investment expenditures have been made on such projects as a sawmill in British Columbia, a planing mill in Alberta, a box factory in

Ontario, a furniture factory in Quebec and a sawmill in New Brunswick. Relatively heavy capital expenditures were made in recent years on plants in Alberta, where the industry was of minor importance before the war.

*Trend of Investment.* As far as its investment pattern is concerned, this appears to be a leading industry. Turning points of capital outlay by the industry preceded turning points of total manufacturing investment on four out of five occasions during the nineteen peacetime years since 1926. The only apparent exception is 1937 when the high point coincided with the peak shown in manufacturing investment as a whole. Sales of the largest sector, saw and planing mills, depend heavily on domestic investment activity. Together with some dependence on demand from abroad this explains the wood and wood products industry's sensitivity to market prospects.

*Amplitudes of Investment Fluctuations.* On the whole, investment by the industry has fluctuated less substantially than investment by all manufacturing industries (see data below and Figure 24).





Period	New Investment—Per cent Change	
	Wood and Its Products Industries	All Manufacturing Industries
1926-1929.....	+ 69	+ 69
1929-1933.....	- 35	- 89
1933-1937.....	+ 108	+ 234
1937-1939.....	- 62	- 30
1939-1948.....	+ 294	+ 488
1948-1950.....	- 8	- 10

The comparatively large increase in capital expenditures in the post-war period has been accompanied

by a substantial rise in profits and prices,<sup>1</sup> with relatively higher increases being recorded than in most other manufacturing industries (see below).

Year	Net Profits of 11 Companies \$ Mill.	Wholesale Price Index of Lumber and Timber	Consumer Price Index of Furniture
1939.....	1.0	100	100
1946.....	1.4	186	137
1947.....	4.0	247	161
1948.....	5.7	310	181
1949.....	3.6	328	188
1950.....	7.4	365	191

## PULP AND PAPER AND THEIR PRODUCTS INDUSTRY

*Coverage of Industry.* This group of manufacturing industries produces wood pulp, paper boxes and paper bags, newsprint, roofing papers, and miscellaneous paper products such as wallboard, wallpaper, stationery, paper towels and cards. Pulp and newsprint production are responsible for about three-quarters of the industrial output, and other papers for the remaining quarter.

*Size and Growth of Industry.* The industry comprises over 500 enterprises employing about 80,000 people. Pulp and paper mills number 125 and provide jobs for about 55,000 persons. The remaining 25,000 persons are working in some 400 establishments producing a variety of paper products. In 1950 the industry as a whole contributed 10 per cent of the total net value of production by all manufacturing industries. Its gross value of production was of the order of \$1.2 billion, of which pulp and newsprint production accounted for about three-quarters and the remaining one-quarter represented the value of other paper products. Corporate enterprises made up more than four-fifths of the industry and were responsible for 99 per cent of its business and employment.

The establishment and growth of Canada's pulp and paper industry have been based upon the nation's abundant resources of timber, water and water power. A mass market for its products in the United States has also had an important influence on the structure and development of the industry.<sup>2</sup> These are the major factors which have contributed to making Canada the world's largest producer of newsprint, producing nearly three-fifths of the world's total supply. Canada produces one-third of the world's pulp exports and is a leading manufacturer of various grades of pulp and paper products. Of the total output of \$1.2 billion in 1950, some two-thirds was sold abroad, mainly to the United States. This proportion was notably higher for newsprint, more than 90 per cent of Canadian production being exported. Imports, while small in relation to total production, are important in certain specialized lines such as wallboard and fibre-board,

electric cable insulating paper, paper containers, and photographic and sanitary papers (see data below).

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	270	9	155	124
1946.....	695	20	402	313
1947.....	911	26	551	386
1948.....	1,061	21	628	454
1949.....	1,092	24	624	492
1950.....	1,179	28	712	495

Because of the strong and continuing world-wide demand, particularly for wood pulp and newsprint, in the post-war period, the industry has grown very rapidly in the five years since the end of World War II. Employment provided by the industry almost doubled. Output increased more than four times in value terms since 1939 and was about double in volume terms (see below). These increases have been achieved by various means in the different segments of the industry. In the pulp and paper fields a number of new plants have come into operation and others have been expanded. In particular, ten new pulp mills were built. From 1946 to 1950 some 14 new medium-sized and large firms have come into operation providing jobs for approximately 1,700 people. In the newsprint field most of the expansion of output has come from modernization of plant and equipment. Speeding up of machines and more efficient operations resulting from plant improvements have added 600,000 tons, or 12 per cent, to the annual productive capacity of Canadian newsprint mills. As a result, output in 1950 reached 5.3 million tons. The continuing heavy demand for pulp and paper products has led to further expansion of plant capacity. Four new pulp mills and several paper converting plants were under construction in 1950.

<sup>1</sup> For an examination of cyclical price fluctuations in this industry, see *Report of the Royal Commission on Prices*, Vol. III, pp. 284-5.

<sup>2</sup> For a discussion of this point see Marshall, H., Southard Jr., F. A., Taylor, K. W., *Canadian-American Industry*, Toronto, The Ryerson Press, 1936, pp. 35 ff.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	6.1	6.2	405	1.6	43	6.5	270	7.8	129	8.4
1946.....	55.0	16.3	486	1.6	67	6.3	695	8.6	334	9.6
1947.....	81.0	15.3	502	1.5	73	6.5	911	9.0	443	10.3
1948.....	89.5	15.5	522	1.6	76	6.6	1,061	8.9	510	10.3
1949.....	81.5	15.2	524	1.5	76	6.5	1,092	8.8	532	10.0
1950.....	72.3	13.9	525	1.5	77	6.6	1,179	8.4	574	9.5

<sup>1</sup> Of total manufacturing.

*Investment by Industry.* The high degree of mechanization achieved by the industry is reflected in substantially greater capital expenditures than have been made by most other manufacturing industries. For example, the pulp and paper industry has been responsible in the post-war period for between 6 and 7 per cent of total manufacturing employment, and for 8 to 9 per cent of total manufacturing gross value of production, but in terms of capital expenditures the industry has contributed about 14 to 16 per cent of the manufacturing total. During the post-war period investment expenditures were considerably larger than those made in pre-war years, and so was the volume of investment after allowance is made for increased investment costs. Capital outlay by the industry averaged \$76 million from 1946 to 1950 and repair and maintenance outlay amounted to \$50 million, or a total of \$126 million annually (see Table 32). Large-scale investment outlays are typical of the industry and of the wood pulp and newsprint segments in particular. In the post-war period annual expenditures have varied from \$4 million to \$12 million on such projects as pulp mills in New Brunswick, Ontario and British Columbia and a pulp and paper mill in Quebec. In some cases the investment expenditures have meant not only a new mill but also the creation of a new town in an uninhabited area, e.g., in Northern Ontario or on the coast of British Columbia. While capital expenditures in the other segments of the industry have been on a much smaller scale, and have varied in extent between segments, they have nevertheless been substantial and reflect the increasing diversity within the industry. Large outlays have been made for such projects as a roofing paper plant, a mill for the manufacture of waxed paper wrapping, a plant turning out teletype and adding machine tapes, a factory for the manufacture of paper cups and straws, and a wallpaper factory.

*Trend of Investment.* With respect to the trend of investment, the industry experienced two major expansion phases in the period under review. One occurred in the period 1926 to 1928, thus preceding the 1929 peak in total manufacturing. The second occurred after World War II, reaching a high point in 1948. In this instance investment by the pulp and paper industry conformed to the general investment pattern of all

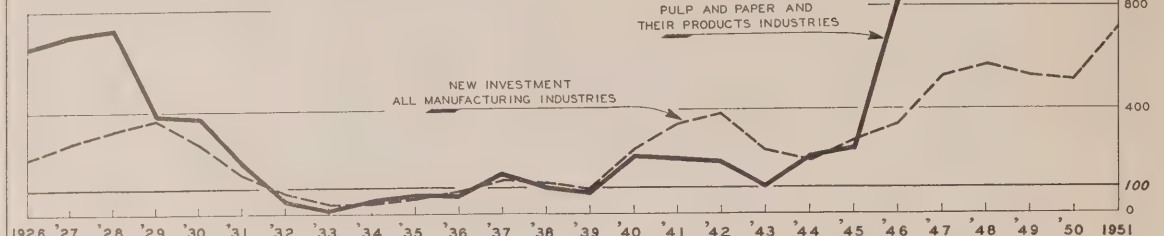
manufacturing industries in Canada. In the thirties investment by the pulp and paper industry was quite small, designed mainly to replace worn out machinery and equipment and to undertake minor improvements of plant facilities. With generally unfavourable markets for pulp and paper products, particularly abroad, the industry was working for most of the thirties at half capacity, reaching about two-thirds of capacity by the outbreak of World War II. In such a situation there was little incentive to introduce any extensive innovations or expand plant capacity. During the thirties investment by the industry followed the pattern of all manufacturing industries, reaching a low in 1933, a moderate high in 1937, and another low in 1939.

*Amplitudes of Investment Fluctuations.* Since the investment pattern of the industry indicates periods of substantial expansion and improvement of plant facilities followed by protracted periods of retrenchment in capital expenditures, it is not surprising to find that investment by this industry undergoes proportionately greater fluctuations than investment by all manufacturing industries. To some extent these large variations appear to be associated with substantial changes in foreign demand for Canadian pulp and paper products, as the following data indicate (see also Figure 25).

Period	Per cent Change		
	Exports, Pulp and Paper and Their Products Industries	New Investment	
		Pulp and Paper and Their Products Industries	All Manufacturing Industries
1926-1929.....	+ 14	+ 42	+ 69
1929-1933.....	- 52	- 97	- 89
1933-1937.....	+ 85	+1,225	+234
1937-1939.....	- 13	- 42	- 30
1939-1948.....	+305	+1,367	+488
1948-1950.....	+ 11	- 19	- 10

- FIGURE 25 -

# NEW INVESTMENT IN THE PULP AND PAPER AND THEIR PRODUCTS INDUSTRIES AND IN ALL MANUFACTURING, CANADA, 1926 - 1951



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE

The large outlay for modernization and expansion of plant facilities in the post-war period has been encouraged by a persistent demand for the industry's products, accompanied by substantial rises in prices and profits, as the data below indicate. By 1949, however, profits declined, and so did prices of wood pulp. Prices of newsprint continued to move upwards. In 1950 the situation changed again, with all sectors of this industry group encountering particularly favourable business conditions.

Year	Net Profits of 36 Pulp and Paper Companies \$ Mill.	Wholesale Price Index of	
		Wood Pulp	Newsprint
1939.....	5.0	100	100
1946.....	31.6	181	154
1947.....	53.1	224	179
1948.....	71.5	249	194
1949.....	62.7	208	202
1950.....	87.0	209	214

## PRINTING, PUBLISHING AND ALLIED INDUSTRIES

*Coverage of Industry.* The industry covers printing and publishing, commercial printing (including printing and book binding), and engraving, stereotyping and allied industries, the latter including electrotyping, lithography, map making and photo-engraving. The publishing business is the most important sector, contributing about one-half to the total output of the industry.

*Size and Growth of Industry.* The industry operates in some 2,500 establishments and provides jobs for close to 60,000 people. The annual gross output of over \$350 million comprises approximately 2.5 per cent of total manufacturing production. The industry is a purely domestic enterprise, with exports amounting to about one per cent of its gross value of production. Imports contribute a little more than 10 per cent of total domestic requirements (see below). Although corporate enterprises are in a minority of about one-third they do more than four-fifths of the work and provide a similar proportion of jobs in the industry. The remaining enterprises are owned by individuals or run as partnerships or co-operatives.

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	120	15	1	134
1946.....	223	31	6	248
1947.....	264	32	5	291
1948.....	307	31	4	334
1949.....	332	36	3	365
1950.....	355	44	2	397

The industry has grown comparatively slowly since 1939. The number of establishments increased by less than 10 per cent and the employment by more than 50 per cent. As a result the industry's relative contribution to total manufacturing investment, employment, and production is now smaller than it was before the war (see below).



Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	6.0	6.1	2,314	9.3	38	5.8	120	3.5	84	5.5
1946.....	7.3	2.2	2,404	7.7	49	4.6	223	2.8	155	4.5
1947.....	13.8	2.6	2,458	7.5	52	4.6	264	2.6	179	4.2
1948.....	19.4	3.4	2,496	7.4	55	4.8	307	2.6	208	4.2
1949.....	20.1	3.8	2,500	7.3	57	4.9	332	2.7	226	4.3
1950.....	20.2	3.9	2,525	7.2	59	5.0	355	2.5	242	4.0

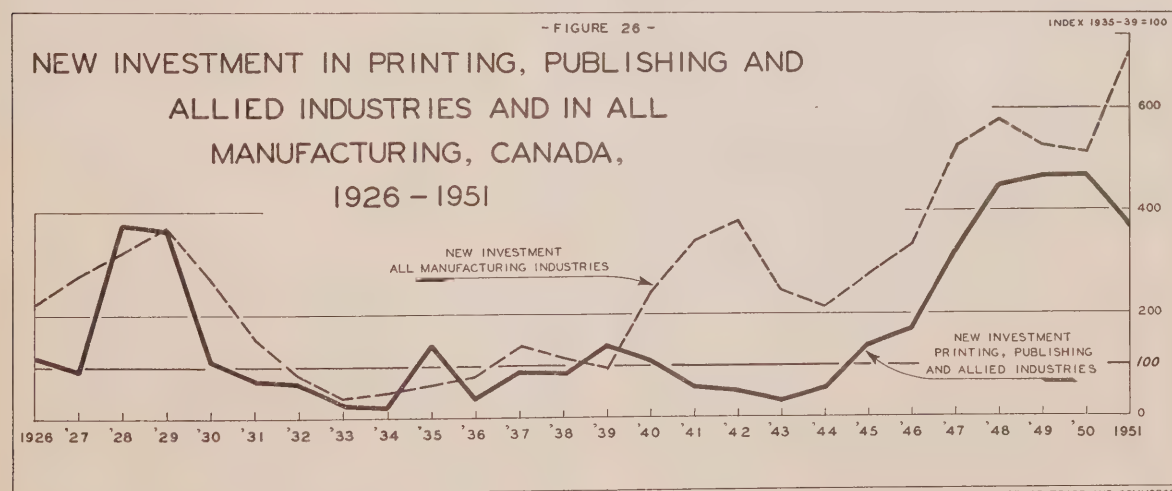
<sup>1</sup> Of total manufacturing.

*Investment by Industry.* By the very nature of its business the industry employs a substantial number of manual workers in relation to its capital equipment. This is illustrated by the fact that in the post-war period the industry has employed between 4 and 5 per cent of all persons working in manufacturing industry, while capital expenditures contributed between 2 and 4 per cent to total manufacturing investment. In the post-war period capital outlay by the industry was at comparatively high levels to make up for deficiencies in plant and equipment dating back to the depressed thirties and the war years. Also, some twenty-three new medium and large companies came into operation after 1945, requiring a certain amount of capital equipment and providing jobs for over 700 people. Annual post-war investment expenditures by the industry averaged about \$16 million, and repair and maintenance about \$7 million, or a total outlay of \$23 million per year (see Table 33). Publishers of newspapers and magazines have accounted for most of the larger investment projects undertaken in the printing and publishing industry in the post-war period.<sup>1</sup> Substantial annual capital expenditures ranging from one to two million dollars were made by an Ontario magazine publisher and by newspaper publishers in Quebec, Alberta and British Columbia. Large projects have also been carried out by firms specializing in engraving and lithographing,

with notable expansion undertaken by a bank note company.

*Trend of Investment.* Because of its small investment the industry has not significantly influenced the pattern of manufacturing investment in the 25-year period under review. The investment pattern of the industry varies. Its turning points precede those of total manufacturing investment in 1929 and 1939, follow in 1933 and 1948 and conform to the over-all pattern in 1937. Small-scale operation prevailing in the industry is one factor in this varying investment pattern, and the peculiarities of the publishing business, another. Where the entrepreneur depends for his income mainly on his own labour and that of a few helpers, and where competition is not too serious because of the local character of a large portion of the industry, the introduction of new equipment and the expansion of plant facilities is frequently delayed.

*Amplitudes of Investment Fluctuations.* Because of a comparatively substantial expansion by the industry in the late twenties, its capital outlay varied somewhat more than that of total manufacturing between 1926 and 1933. Since then investment by the industry has on the whole fluctuated somewhat less than total manufacturing investment, as the figures below show (see also Figure 26).



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<sup>1</sup> Some of the significant innovations in this industrial group have occurred in fields other than publishing. The development of lithography in commercial printing is an example.

Period	New Investment—Per cent Change	
	Printing, Publishing and Allied Industries	All Manufacturing Industries
1926-1929.....	+220	+ 69
1929-1933.....	— 92	— 89
1933-1937.....	+225	+234
1937-1939.....	+ 54	— 30
1939-1948.....	+223	+488
1948-1950.....	+ 4	— 10

Profits in the industry rose only slightly to 1949, but showed a marked increase in 1950. Prices have

shown only moderate increases (see below). Neither is therefore in line with increases in most other manufacturing industries.

Year	Net Profits of 5 Companies \$ Mill.	Consumer Price Index
1939.....	0.4	100
1946.....	0.5	115
1947.....	0.5	121
1948.....	0.5	127
1949.....	0.5	134
1950.....	0.7	139

## IRON AND STEEL AND PRODUCTS INDUSTRY

*Coverage of Industry.* The iron and steel and products industry is among the most important manufacturing industries in Canada, ranking with the animal and vegetable food industries as one of the two largest fields of manufacturing employment and output. The iron and steel and products industry contains primary and secondary iron and steel groups. Blast furnaces, open hearths and rolling mills make up the primary group, while the secondary industry includes manufacturers of a variety of commodities made from iron and steel. Examples of these items are machinery, boilers and plate work, hardware and tools, iron castings, sheet metal products, wire and wire goods, etc. Output of the primary iron and steel industry is responsible for about one-quarter of total value of production of this industrial group as a whole.

*Size and Growth of Industry.* There are four basic iron and steel producers in Canada who together account for over 80 per cent of steel ingot output. These companies are vertically integrated to a large extent in that their operations include most processing and fabricating stages. There are in addition about a dozen smaller steel companies which make either iron or steel and which vary in degree of vertical integration. The major part of the industry is located in Ontario, with one of the large companies situated in Nova Scotia. The Canadian primary iron and steel industry has an annual capacity of 2.6 million tons of pig iron, over 3 million tons of steel and over half a million tons of special alloy steels, with further expansion under way. Manufacturers of secondary steel products (excluding transportation equipment, which is dealt with separately) are operating in some 2,400 establishments in various parts of the country, but with the major concentration in Ontario and Quebec.

Primary iron and steel producers and steel products manufacturers together turned out a gross value of output of \$1.5 billion in 1950 and provided employment for some 161,000 people. The industry contributed 14 per cent to the total net value of manufacturing production. Close to three-fifths of the firms in the

field operate as incorporated companies and do over 95 per cent of the business. The remaining companies, doing less than 5 per cent of the industry's business, are enterprises owned by individuals or run as partnerships. The Canadian iron and steel industry supplies about two-thirds of total domestic requirements. Imports of steel commodities are important in such items as large structural steel sections, certain sizes of skelp,<sup>1</sup> Bessemer skelp, wide steel sheet and plate, heavy gauge hot- and cold-rolled strip and wire for wire rope. Imports are also significant in the machinery and equipment field. They include such items as farm machinery, mining and metallurgical machinery, textile machinery, and components for the manufacture and assembly of a wide variety of products. Exports, while significant, are much less important than imports, and were running at about 12 per cent of domestic production in 1950 (see below).

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	321	130	37	414
1946.....	825	354	85	1,094
1947.....	1,065	533	151	1,447
1948.....	1,321	596	202	1,715
1949.....	1,409	665	189	1,885
1950.....	1,513	669	182	2,000

The industry has been growing more rapidly than most other manufacturing industries. Employment provided by the industry in 1950 comprised 14 per cent of total manufacturing employment as against 11 per cent in 1939. In that period the industry about doubled the number of plants in operation and jobs provided. The gross value of its output rose to more than four times the level of eleven years earlier, or more than double if allowance is made for price changes.

<sup>1</sup> Skelp is the material from which steel pipe is made.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	9.4	9.6	1,186	4.8	73	11.1	321	9.2	179	11.7
1946.....	36.9	10.9	2,086	6.7	151	14.3	825	10.3	462	13.3
1947.....	54.9	10.4	2,200	6.7	162	14.3	1,065	10.6	580	13.5
1948.....	56.3	9.7	2,263	6.8	170	14.7	1,321	11.1	709	14.4
1949.....	52.3	9.8	2,347	6.8	164	14.1	1,409	11.4	765	14.4
1950.....	54.2	10.4	2,400	6.8	161	13.7	1,513	10.8	822	13.6

<sup>1</sup> Of total manufacturing.

*Investment by Industry.* The great strain put on the industry during the war years and the need for replacement and modernization of much of its plant were responsible for a substantial increase in capital outlay by this sector since 1945. Expenditures on new construction and machinery and equipment averaged about \$51 million in the post-war period, or about five times as much as the industry spent before the war (see Table 34). Among the various industrial sectors in the iron and steel group, producers of primary iron and steel and of machinery and equipment have been making the largest capital outlay in the post-war period. In no small measure this development was encouraged by the persistent demand for Canadian-produced equipment both at home and abroad (see below).

Industry	New Investment— Millions of Dollars				
	1946	1947	1948	1949	1950
Primary Iron and Steel.....	6.7	15.7	18.5	12.2	17.1
Agricultural Implements.....	4.4	6.9	6.3	3.5	2.5
Boilers, Tanks and Plate Work.	1.1	2.2	1.7	1.2	2.8
Iron Castings.....	3.7	4.6	4.9	6.4	3.0
Machinery and Equipment...	6.8	8.8	9.5	17.4	9.2
Sheet Metal Products.....	4.9	5.4	3.8	3.2	5.6
Wire and Wire Goods.....	1.1	1.9	1.9	1.7	3.2
Other Iron and Steel Industries.	8.2	9.4	9.7	6.7	10.8
Total.....	36.9	54.9	56.3	52.3	54.2

The strength of this demand which was world-wide encouraged some 106 new medium and large-sized firms to enter the field between 1946 and 1950, providing new jobs for about 3,500 men and women. As a result of substantial expansion and modernization of existing plant, and the establishment of new enterprises, the industry has considerably increased the range of its products. In the primary field new commodities include special tool steels, stainless steel sheet and castings, cold-rolled steel strip and tin-plate. These developments have reduced Canadian dependence on steel

imports. In the secondary field articles made from steel for peacetime uses for the first time in Canada in the post-war period include a great variety of products such as noiseless typewriters, diesel engines, and special purpose tools.

The largest post-war investment programs in the industry have been carried out by the producers of primary iron and steel. Individual projects involved annual outlays up to \$10 million. In the secondary field annual capital expenditures of over one million dollars were made on establishments manufacturing agricultural implements, household appliances, plumbing supplies, iron castings, industrial machinery, wire goods and structural steel shapes. These investment programs were carried out mainly in the larger urban centres. However, expansion of the industry has been more widespread and has been taking place all across the country. Annual expenditures ranging from \$25,000 to \$150,000 were made in building new or expanding existing plants in smaller communities. These include: a new foundry in a small New Brunswick town, a marine engine works in a coastal town in Nova Scotia, a machine needle plant in Quebec's Eastern Townships, a plant expansion project for the manufacture of kitchenware in a Western Ontario town, and foundries in Manitoba and British Columbia communities.

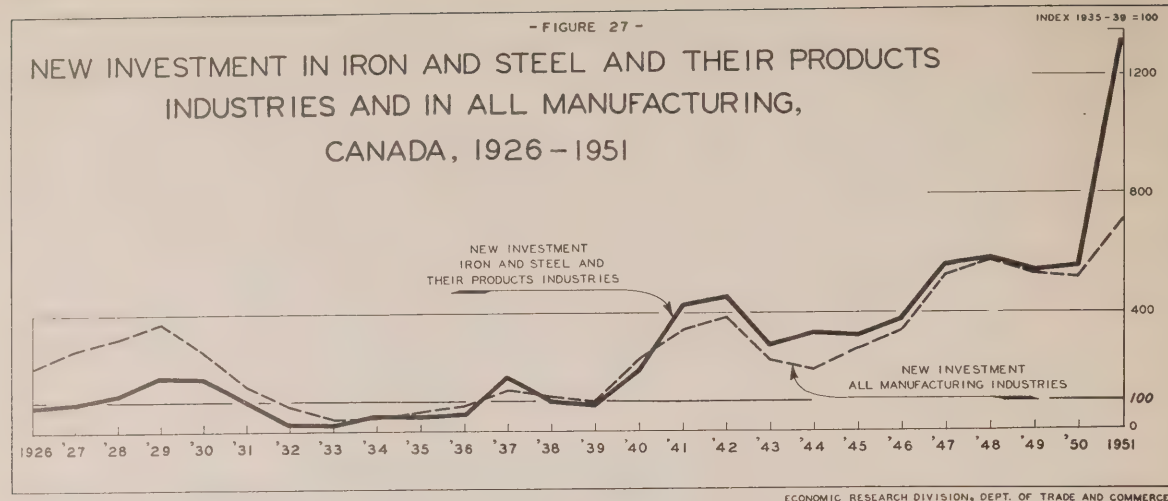
*Trend of Investment.* Investment by the iron and steel and products industry has been running at about 10 per cent of total manufacturing investment in the post-war period. Since activity in the industry is greatly dependent on demand for capital goods, sales of which have in turn varied substantially over the last 25-year period, it is not surprising that investment by the steel industry has followed closely in terms of turning points (but not in amplitudes of fluctuations) the pattern of all manufacturing investment and of total private and public investment.

*Amplitudes of Investment Fluctuations.* Investment by the iron and steel industry has undergone greater fluctuations than total manufacturing investment, as the data below show (see also Figure 27). In spite of some decline from its post-war peak of 1948, investment by the industry in 1950 was still substantial.



- FIGURE 27 -

# NEW INVESTMENT IN IRON AND STEEL AND THEIR PRODUCTS INDUSTRIES AND IN ALL MANUFACTURING, CANADA, 1926-1951



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE.

notably in the post-war period, although less than the general price level, as indicated by commodities reflected in the wholesale price index.

Period	New Investment—Per cent Change	
	Iron and Steel and Their Products Industries	All Manufacturing Industries
1926-1929.....	+115	+ 69
1929-1933.....	- 90	- 89
1933-1937.....	+917	+234
1937-1939.....	- 49	- 30
1939-1948.....	+499	+488
1948-1950.....	- 4	- 10

Year	Net Profits of 65 Companies \$ Mill.	Wholesale Price Index of Iron and Steel Products (Excluding Machinery and Equipment)	Retail Price Index of Machinery and Equipment
1939.....	16.2	100	100
1946.....	24.7	122	132
1947.....	37.1	134	156
1948.....	56.6	154	178
1949.....	67.1	168	188
1950.....	77.2	175	200

The persistent demand for iron and steel products in the post-war period brought substantial profits to the industry and encouraged further expansion of capacity (see below). Prices of iron and steel products rose

## TRANSPORTATION EQUIPMENT INDUSTRY

*Coverage of Industry.* The transportation equipment industry includes shipbuilding and repairs, producers of motor vehicles and supplies, railway rolling stock and aircraft, and a miscellaneous group manufacturing such items as bicycles, baby carriages, sleds and wheelbarrows. Of these industries the motor vehicles and supplies industry is the most important segment, contributing about two-fifths to the total output of the industry. Canada is the third largest producer of motor vehicles in the world, being surpassed only by the United States and the United Kingdom. On a per capita basis Canada ranks ahead of the United Kingdom. Canada is also the world's largest importer of automotive equipment and the third largest exporter.

*Size and Growth of Industry.* The transportation equipment industry employs over 100,000 people in more than 600 plants and yards, and produces equipment valued at over \$1.2 billion. In terms of net value added, its output accounted for 9 per cent of total

manufacturing net value in 1950. The automotive industry has a peacetime capacity of about 200,000 passenger cars, 120,000 trucks and over 1,000 buses and other commercial vehicles a year. The railway rolling stock industry has a peacetime capacity of some 500 locomotives and 15,000 freight cars a year. The shipbuilding industry is equipped to build 500,000 gross tons of ocean-going shipping annually. In addition 100,000 gross tons of shipping can be built each year at yards on the Great Lakes. Although the aircraft industry has reduced operations considerably under peacetime conditions, it has maintained many of the establishments which during World War II turned out a total of 16,000 planes valued at nearly \$400 million.<sup>1</sup> Close to one-half of the firms in the transportation equipment business are incorporated companies and these are responsible for 99 per cent of the output. The industry takes care of over three-quarters of domestic requirements, the remainder being met by imports, mainly from the United States and the United Kingdom.

<sup>1</sup> In 1951 most of these industries were expanding rapidly as Canada embarked on a rearmament program.

The tendency has been towards a reduction of imports, particularly since the establishment of diesel locomotive plants in Canada. Exports have been about 15 per cent of domestic production, although in 1950 they amounted to less than 7 per cent (see below).

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	236	52	27	261
1946.....	590	133	167	556
1947.....	804	226	148	882
1948.....	941	174	170	945
1949.....	1,063	228	157	1,134
1950.....	1,223	310	84	1,449

The industry as a whole saw its peak activity during the war years, but in many fields it has been able to consolidate its gains, and in fact has concentrated on expanding production beyond wartime achievements. This has occurred particularly in the automotive and railway rolling stock industries. In the period 1939 to 1950 the number of establishments in the industry as a whole has increased by about one-half while employment has doubled. Production in 1950 was close to three times that of 1939 in volume terms and more than five times in value terms (see below). In no small measure this expansion has resulted from new firms entering the field in the post-war period. Some 38 new companies each employing ten or more persons have commenced operations between 1946 and 1950. These medium-sized and large establishments have provided employment for close to 8,000 people.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	7.4	7.5	418	1.7	49	7.4	236	6.8	99	6.5
1946.....	15.7	4.7	539	1.7	101	9.6	590	7.3	279	8.0
1947.....	14.1	2.7	562	1.7	104	9.2	804	8.0	366	8.5
1948.....	15.4	2.7	578	1.7	102	8.8	941	7.9	419	8.5
1949.....	22.0	4.1	596	1.7	105	9.0	1,063	8.6	466	8.8
1950.....	44.3	8.5	610	1.7	104	8.9	1,223	8.7	536	8.9

<sup>1</sup> Of total manufacturing.

*Investment by Industry.* This group of industries expanded its plant and equipment substantially during the war years,<sup>1</sup> and new capital outlay was comparatively small in the immediate post-war period (see Table 35). However, as the demand for transportation equipment, both domestic and foreign, continued to be heavy, capital expenditures rose considerably, reaching in 1950 a level approximating the war peak. (This is true in current dollar terms, but similar expenditures would involve a smaller volume of construction and machinery and equipment purchases because of the intervening increase in the price of capital goods.) Considering the application of mass-production processes which are widely used in the manufacture of transportation equipment, it is noteworthy that the industry in the years 1946 to 1949 was responsible for only 3 to 5 per cent of total manufacturing investment, while employment varied from 9 to 10 per cent. However, in 1950, the contribution of this industry to total manufacturing investment had risen notably and it is now more in line with the part played by the industry in terms of output and employment. The different contributions which the individual sectors of the transportation equipment industry have made to the total investment of this group are shown below.

The larger post-war investment programs in the transportation equipment industry have been undertaken by automobile manufacturers in Ontario and by makers of railway rolling stock and aircraft in Quebec. Annual capital outlays on specific projects ranged from one to five million dollars involving an automobile factory, an aircraft establishment and a railway rolling stock plant. Expansion of facilities for the repair of railway equipment and the manufacture and repair of ships has involved significant capital outlays varying between \$100,000 and \$400,000 in all parts of the country. They include projects in Nova Scotia, New Brunswick, Alberta and British Columbia. These are particularly important because of their contribution to the industrialization of the less industrialized provinces.

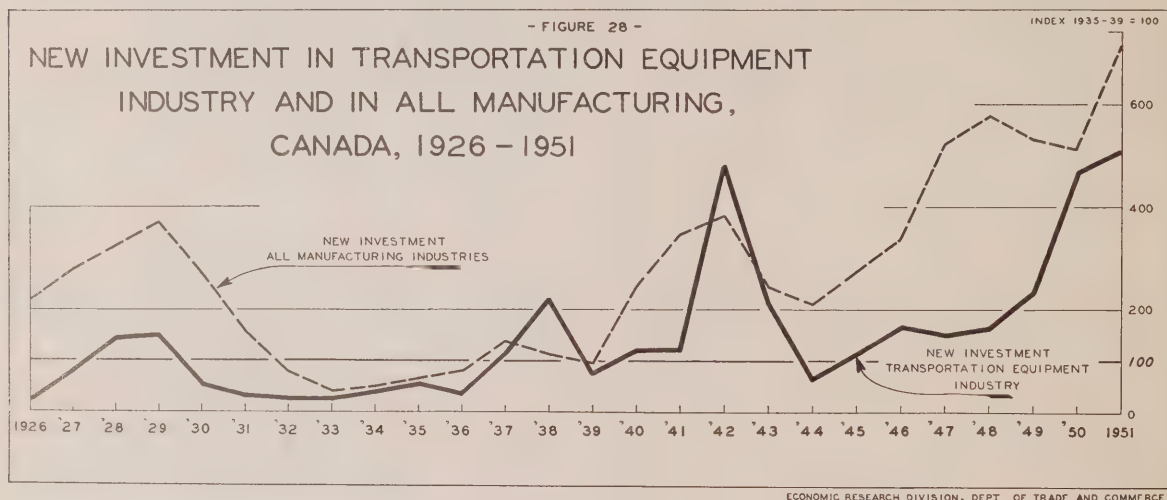
*Trend of Investment.* The transportation equipment industry appears to follow quite closely the pattern of manufacturing investment as a whole, although there are some exceptions. As an example of the latter, the series shows a peak of activity in 1938 and continues an upward trend after 1948, thus following turning points of the manufacturing industry as a whole. But on other occasions turning points coincide, as for example in 1929, 1933 and 1939. Capital outlay necessitated by new technical developments is particularly

<sup>1</sup> Data in Table 35 reflect investment expenditures by private industry and do not include plant expansion financed directly by the Federal Government, which during the war years is included under Federal Government investment and under war investment (see Tables 82 and 123).

Year	New Investment—Millions of Dollars					
	Motor Vehicles and Supplies	Railway Rolling Stock	Shipbuilding and Repair	Aircraft and Repair	Other Transportation Equipment	Total
1946.....	8.7	3.4	1.8	1.3	0.5	15.7
1947.....	10.4	1.3	1.0	0.7	0.7	14.1
1948.....	10.1	3.5	1.0	0.4	0.4	15.4
1949.....	11.8	6.1	2.0	1.3	0.8	22.0
1950.....	24.7	10.6	1.9	6.9	0.2	44.3

heavy in this industry. Expansion or replacement of existing facilities is therefore guided more by long-term requirements and cost-saving considerations than by current or immediately foreseeable levels of demand. In 1950 this applies particularly to the railway rolling stock industry which, following a decision of the railways to convert from steam to diesel engines, had to change its production processes substantially. New plants are necessary to meet new demands likely to extend for the conversion process alone over a five to ten-year period.

*Amplitudes of Investment Fluctuations.* Investment by the transportation equipment industry has in periods of expansion risen somewhat more than manufacturing investment as a whole. This was so particularly in the late twenties, the second half of the thirties and the latter part of the post-war period. In the contraction phase from 1929 to 1933, investment fell by about the same proportion as total manufacturing investment, as the following figures show (see also Figure 28).



Period	New Investment—Per cent Change	
	Transportation Equipment Industry	All Manufacturing Industries
1926-1929.....	+632	+ 69
1929-1933.....	- 84	- 89
1933-1937.....	+373	+234
1937-1939.....	- 29	- 30
1939-1948.....	+108	+488
1948-1950.....	+188	- 10

Profits of the transportation equipment firms, which declined in the immediate post-war period, rose rapidly until in 1950 they were about eight times those of 1939.

Prices of transportation equipment on the whole have risen steadily in the post-war period. This is illustrated by the trend of retail prices of automobiles in Canada, shown below.

Year	Net Profits of 5 Transportation Equipment Companies \$ Mill.	Retail Price Index of Automobiles
1939.....	2.7	100
1946.....	2.0	141
1947.....	8.2	163
1948.....	12.7	183
1949.....	20.9	197
1950.....	22.4	198



## NON-FERROUS METALS AND PRODUCTS INDUSTRY, INCLUDING ELECTRICAL APPARATUS AND SUPPLIES

*Coverage of Industry.* This grouping covers two major industries, the electrical apparatus and supplies industry and other non-ferrous metal products industries, including smelting and refining. The electrical apparatus and supplies industry produces heavy electrical machinery and equipment, radios and radio parts, refrigerators, vacuum cleaners and similar household appliances, batteries, and a host of miscellaneous electrical commodities such as alarm apparatus, conduits and fittings, electrical instruments, photographic equipment, telephone and telegraph equipment and therapeutic apparatus. The other non-ferrous metal products industries include both the primary and secondary stages of production, that is, both the smelting and refining of non-ferrous metals and the production of commodities other than electrical apparatus made from these metals. Commodities produced include those made from aluminum, copper, brass and white metal alloys, and comprise jewellery, silverware and a group of miscellaneous non-ferrous metal products such as acetylene lamps, electric lighting fixtures, weather stripping, non-ferrous metal wires, and typewriter spools. Output of electrical apparatus and supplies equals about two-thirds of the value of production of the remaining primary and secondary non-ferrous metal products industries (see below).

*Size and Growth of Industry.* This industrial group operates over 900 plants and employs over 100,000 people. In 1950 its gross value of production was about \$1.8 billion. But much of the industry's output, particularly non-ferrous metal products, was destined for sale abroad. For example, Canada exported about 85 per cent of her aluminum output in 1950, 69 per cent of copper, 81 per cent of lead and 88 per cent of zinc, all in various stages of refinement. For the industry group as a whole, exports comprised about one-fifth of output and imports were 11 per cent of domestic consumption (see below). Almost two-thirds of the industry consists of corporate enterprises doing about 98 per cent of the business. The remaining firms are owned by individuals or operate on a partnership basis.

Year	Gross Value of Production—Millions of Dollars		
	Non-Ferrous Metal Products	Electrical Apparatus and Supplies	Total
1939.....	327	89	416
1946.....	485	234	719
1947.....	668	367	1,035
1948.....	844	426	1,270
1949.....	866	486	1,352
1950.....	1,084	694	1,778

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	416	37	153	300
1946.....	719	107	227	599
1947.....	1,035	145	269	911
1948.....	1,270	133	353	1,050
1949.....	1,352	151	348	1,155
1950.....	1,778	188	346	1,620

Particularly as a result of rapid technical progress made during the war, such as the development of a great variety of electronic equipment, and because of continuing world-wide demand for non-ferrous metals and their products, the industry expanded greatly during the last decade. Between 1939 and 1950 employment more than doubled and the gross value of output increased by more than four times (see below). Some 63 new firms came into operation beginning in 1946. Each of these employed more than 10 persons and in total provided over 4,000 new jobs.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	7.6	7.7	526	2.1	45	6.8	416	12.0	156	10.2
1946.....	19.3	5.7	740	2.4	85	8.0	719	8.9	278	8.0
1947.....	31.1	5.9	799	2.4	96	8.5	1,035	10.3	402	9.4
1948.....	42.4	7.3	817	2.4	100	8.7	1,270	10.7	490	9.9
1949.....	45.5	8.5	897	2.6	100	8.6	1,352	10.9	558	10.5
1950.....	37.0	7.1	950	2.7	103	8.8	1,778	12.7	746	12.4

<sup>1</sup> Of total manufacturing.

*Investment by Industry.* While the industry experienced its most rapid growth during the war, the consolidation of this expansion required substantial capital outlay in the post-war period. Average annual expenditures from 1946 to 1950 for new investment amounted to about \$35 million, and repair and maintenance outlay averaged \$37 million, or a total of \$72 million (see Table 36). The expansion of plant facilities of the industry was at about the same rate as in most other sectors of manufacturing, contributing about the same percentage to total manufacturing investment in 1950 as in 1939. As the following figures show, investment by the non-ferrous metals industry was the more important factor in the picture.

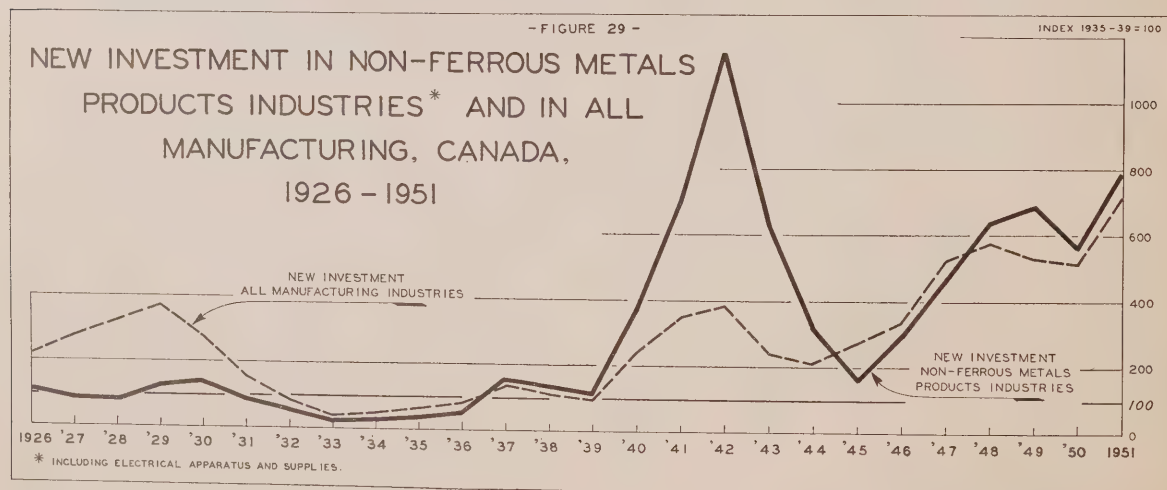
Year	New Investment—Millions of Dollars		
	Non-Ferrous Metals Products	Electrical Apparatus and Supplies	Total
1946.....	7.6	11.7	19.3
1947.....	16.1	15.0	31.1
1948.....	25.7	16.7	42.4
1949.....	28.9	16.6	45.5
1950.....	22.6	14.4	37.0

The large individual investment projects in the electrical apparatus and supplies industry in the post-war period are closely related to the overall investment program of the economy. Annual outlays of up to \$3 million have been made on establishments producing heavy electrical machinery for manufacturing and power plants and even larger annual expenditures have been made on plants producing telephone and radio equipment. While the individual amounts are smaller, substantial expenditures varying from \$100,000 to a million dollars have also been made on plants producing

household electrical appliances. Included in this category are expansion projects by manufacturers of vacuum cleaners, radios and refrigerators. Large post-war investment outlays in the other non-ferrous metals products industries have been mainly concentrated in the primary stages of production of such metals as aluminum, nickel, copper and zinc. Annual investment expenditures on specific projects have exceeded \$5 million, with outlays of over a million dollars each being made on plants in Quebec, Ontario, Manitoba and British Columbia. The expansion of that part of the industry producing secondary products has been on a smaller scale. Typical examples involving annual outlays of over \$100,000 would include plants manufacturing brass locks and fasteners and establishments making jewellery.

*Trend of Investment.* The non-ferrous metals products and electrical apparatus and supplies industry appears in part to conform to and in part to follow turning points of investment by manufacturing as a whole. Conformity to the pattern is indicated for the years 1933, 1937 and 1939. However, expenditures in the late twenties appear to have reached a peak one year later than investment by most other manufacturing industries. Again, in the post-war period investment of this industry reached a high point after investment by all manufacturing industries had turned down—at least temporarily. The large size of some of the projects, involving substantial capital expenditures spread over several years, results in continuing heavy expenditures on projects started earlier even when many other industries have begun to curtail their capital outlays. The situation in this respect is similar to that prevailing in the pulp and paper industry.

*Amplitudes of Investment Fluctuations.* Except in the recovery period from 1933 to 1937 and in the decline after 1948 capital expenditures of the industry appear to have fluctuated somewhat less than those of manufacturing investment as a whole (see data below and Figure 29).



Period	New Investment—Per cent Change	
	Non-Ferrous Metals Products Industries, Including Electrical Apparatus and Supplies	All Manufacturing Industries
1926-1929.....	+ 14	+ 69
1929-1933.....	- 83	- 89
1933-1937.....	+621	+234
1937-1939.....	- 25	- 30
1939-1948.....	+458	+488
1948-1950.....	- 13	- 10

The strength of the post-war market for the products of the industry is indicated by profits and price data. Profits more than doubled between 1939 and 1950 and prices increased notably.

Year	Net Profits of 34 Companies \$ Mill.	Wholesale Price Index of Non-Ferrous Metal Products	Consumer Price Index of Electrical Apparatus and Supplies
1939.....	74.2	100	100
1946.....	76.5	118	114
1947.....	116.3	144	144
1948.....	153.3	168	166
1949.....	131.9	174	169
1950.....	155.1	187	180

### NON-METALLIC MINERALS AND PRODUCTS INDUSTRY, INCLUDING PRODUCTS OF PETROLEUM AND COAL

*Coverage of Industry.* This manufacturing group includes two major industries, non-metallic mineral products and coal and petroleum products. The non-metallic mineral products industry includes manufacturers of asbestos products, cement, clay products, glass and glass products, lime and gypsum products, stone and concrete products, and a wide variety of miscellaneous non-metallic mineral products. The coal and petroleum products industry consists of three sections: petroleum refining and petroleum products, coke and gas products and a miscellaneous group of petroleum and coke products, such as asphalt paving and roofing materials. As the data below show, the non-metallic mineral products industry is the more important in terms of employment provided. The coal and petroleum products industry, on the other hand, is the more important field in terms of the value of output.

petroleum and coal products. The industry produced a total of close to \$900 million worth of commodities in that year and employed some 45,000 people. It contributed 5 per cent to the net value of all manufacturing production in the same year. About one-half of the firms in the field were incorporated companies doing 98 per cent of the industry's business. Canadian producers met over three-quarters of domestic requirements, the remainder being imported chiefly from the United States. Exports have been running at less than 8 per cent of production (see below).

Industry	1939		1950	
	Gross Value of Production \$ Mill.	Employment Thous.	Gross Value of Production \$ Mill.	Employment Thous.
Non-Metallic Mineral Products	64	14	277	29
Petroleum and Coal Products...	144	9	614	16
Total.....	208	23	891	45

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	208	45	9	244
1946.....	446	108	39	515
1947.....	563	166	50	679
1948.....	724	205	59	870
1949.....	778	183	49	912
1950.....	891	197	69	1,019

The industry has grown substantially in the last decade. Some of this growth has been associated with the Alberta oil and natural gas development which has come very much to the fore in the post-war period. In terms of employment and output the industry has grown about as much as the average manufacturing industry, but in terms of expenditures in plant and equipment it has spent a considerably larger amount than most other industries, as the data below indicate. Further, about 50 new medium-sized and large companies have come into existence since the beginning of 1946 and these have provided jobs for close to 2,000 people.

*Size and Growth of Industry.* In 1950 there were more than 1,100 plants turning out non-metallic minerals,



Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	6.7	6.8	809	3.3	23	3.5	208	6.0	86	5.6
1946.....	17.5	5.2	910	2.9	36	3.4	446	5.6	174	5.0
1947.....	55.6	10.5	943	2.9	39	3.5	563	5.6	199	4.6
1948.....	70.8	12.2	1,009	3.0	41	3.5	724	6.1	232	4.7
1949.....	47.5	8.9	1,097	3.2	43	3.7	778	6.3	262	4.9
1950.....	43.7	8.4	1,150	3.3	45	3.8	891	6.4	299	5.0

<sup>1</sup> Of total manufacturing.

*Investment by Industry.* New firms coming into operation, modernization and replacement of existing plant and equipment that had been allowed to run down during the war period, and further expansion and diversification, particularly in the building material supplying industries, have been important factors in the post-war period. In more recent years construction of new oil refining capacity has become an increasingly important factor. New investment averaged \$47 million per year. If to this is added the annual average maintenance and repair outlay of about \$26 million, the industry spent a total of \$73 million yearly in the post-war period on the expansion and maintenance of its plant and equipment (see Table 37). As the following data indicate, petroleum and coal products industries were the more important element in investment of this industrial group.

Year	New Investment—Millions of Dollars		
	Non-Metallic Mineral Products	Petroleum and Coal Products	Total
1946.....	7.7	9.8	17.5
1947.....	21.9	33.7	55.6
1948.....	28.1	42.7	70.8
1949.....	19.7	27.8	47.5
1950.....	15.7	28.0	43.7

The large post-war investment outlays in the industry, exclusive of the petroleum and coal sector, reflect the heavy demands made by the post-war construction program. In Quebec, Ontario and Alberta annual expenditures of over a million dollars per project were made to expand capacity of cement making plants. Sums of one million dollars were spent in improving brick yards, asbestos production facilities and optical and abrasive plants. Even larger capital outlays have been made in the period to expand the capacity of existing oil refineries and to build new ones. Annual expenditures of up to \$10 million or more have been made on individual establishments in Quebec, Ontario, and Alberta.

*Trend of Investment.* Investment in this industry appears to follow closely the pattern of investment by all manufacturing industries. All five turning points

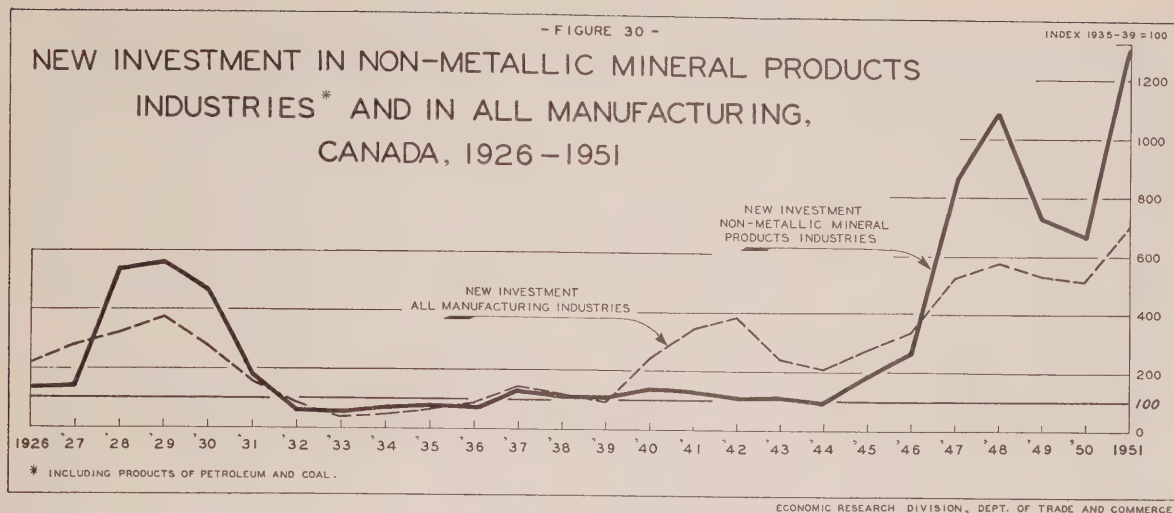
of the two investment series coincide. A large proportion of non-metallic minerals and petroleum and coal products is sold to other businesses or to governments and individuals for capital projects. Thus the demand for products of the industry is closely tied in with fluctuations of total private and public investment in Canada.

*Amplitudes of Investment Fluctuations.* Except for the latter part of the thirties, investment by the industry has fluctuated more substantially than investment of manufacturing as a whole (see data below and Figure 30).

Period	New Investment—Per cent Change	
	Non-Metallic Mineral Products Industries, Including Products of Petroleum and Coal	All Manufacturing Industries
1926-1929.....	+322	+ 69
1929-1933.....	- 91	- 89
1933-1937.....	+167	+234
1937-1939.....	- 24	- 30
1939-1948.....	+957	+488
1948-1950.....	- 38	- 10

It is noteworthy that investment in the industry rose substantially in the post-war period, although neither profits in the industry nor prices of the commodities it turned out rose as significantly as the corresponding items in most other groups of manufacturing.

Year	Net Profits of 34 Companies \$ Mill.	Wholesale Price Indices		
		Non-Metallic Mineral Products (Excluding Coal and Petroleum Products)	Coal Products	Petroleum Products
1939.....	35.2	100	100	100
1946.....	34.6	112	113	122
1947.....	40.7	124	136	131
1948.....	50.7	138	176	161
1949.....	53.7	148	190	166
1950.....	67.8	154	187	174



## CHEMICALS AND THEIR PRODUCTS INDUSTRIES

*Coverage of Industry.* This industrial grouping covers several stages of chemical production, including the manufacture of industrial and fine chemicals as well as a variety of chemical-using industries. Industrial chemicals produced by Canadian industry include acids, alkalis and salts, both organic and inorganic. Production of chemicals in Canada became more diversified during World War II as manufacture of a number of special chemicals was commenced. These include carbamite, monoethylaniline, dibutyl phthalate, anhydrous ammonia, vinyl acetate resins, and ammonium nitrate. Production of these compounds continued in the post-war period. Further, associated with the development of a synthetic rubber industry in Canada a number of intermediate chemicals, such as styrene and butadiene also came into production. Other branches of the industry which either use chemicals as major raw materials or employ chemical processes include producers of fertilizers, explosives and ammunition, medicinal and pharmaceutical preparations, paints and varnishes, soaps, washing and cleaning compounds, toilet preparations, vegetable oils, primary plastics and a group of miscellaneous items such as industrial alcohol, creosote, dyes, insecticides, recovering solvents and turpentine. In the last few years paints and varnishes, medicinal and pharmaceutical preparations, industrial chemicals and fertilizers have been the four most important sectors in the industry, contributing over one-half of its total output.

*Size and Growth of Industry.* The industry operates about a thousand plants. Of these approximately three hundred are manufacturing some 200 different basic industrial and fine chemicals, the remainder producing a variety of allied products. The industry as a whole gives employment to some 40,000 persons, who in 1950 turned out a gross value of production of more than \$600 million. This is 5 per cent of the net value of manufacturing production. About three-quarters of the firms are incorporated companies doing 98 per cent of

the total business of the industry. The remaining firms are operated either by individuals or as partnerships. The chemical industry supplies about three-quarters of domestic requirements, the rest being imported, mainly from the United States. Foreign markets absorb about 17 per cent of Canadian production (see below).

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	164	54	25	193
1946.....	402	107	80	429
1947.....	488	138	98	528
1948.....	580	139	105	614
1949.....	595	155	110	640
1950.....	631	191	107	715

The industry grew rapidly during the war, with most of the gains consolidated in the post-war period after a period of readjustment in 1945 and 1946. In the years that followed further expansion of the industry took place. It was based in the main on three factors: (a) the continuously growing demand for peacetime chemical products in Canada; (b) the availability in this country of new sources of basic substances, e.g., ethylene glycol; and (c) the increasing commercial use of research findings, particularly important in the plastics field. Employment in the industry almost doubled between 1939 and 1950. Some 200 new establishments were opened up, most of them by existing companies (see below). There were also new entrants into the industry. Some 44 new medium-sized and large firms have become established in Canada since the end of the war, providing added employment for about 1,400 men and women.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	3.4	3.5	817	3.3	23	3.5	164	4.7	90	5.9
1946.....	19.6	5.8	1,031	3.3	38	3.6	402	5.0	208	6.0
1947.....	33.7	6.4	1,046	3.2	39	3.5	488	4.8	234	5.5
1948.....	41.9	7.2	1,031	3.1	40	3.5	580	4.9	269	5.4
1949.....	37.8	7.1	1,037	3.0	41	3.5	595	4.8	289	5.4
1950.....	32.8	6.3	1,050	3.0	41	3.5	631	4.5	307	5.1

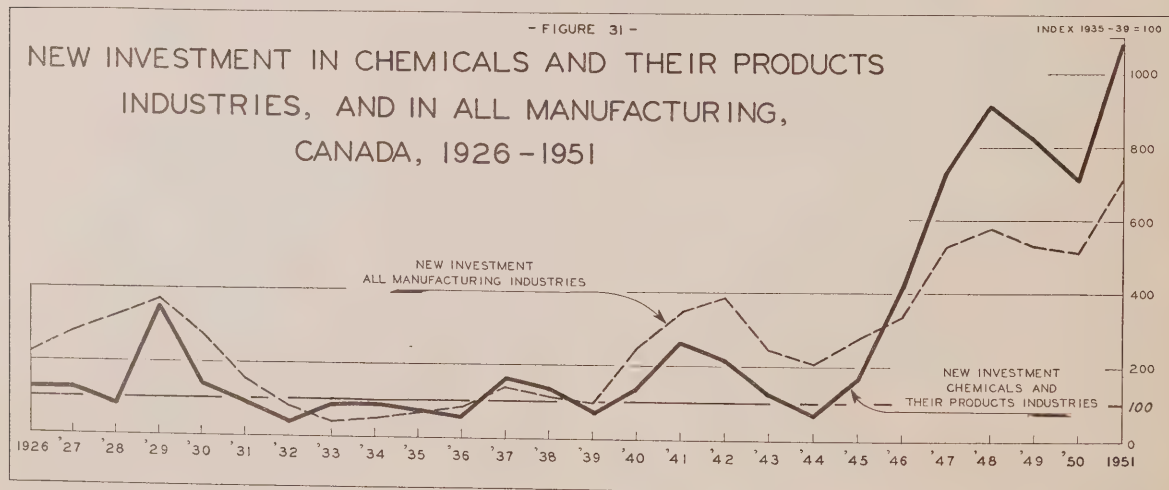
<sup>1</sup> Of total manufacturing.

*Investment by Industry.* Post-war capital expenditures for modernization and expansion of plants by the industry averaged \$33 million per year, and repair and maintenance outlay \$19 million, or a total of \$52 million annually (see Table 38).<sup>1</sup> The great emphasis by the chemical industries on the most up-to-date equipment is indicated by the fact that in 1950, for example, the industry was responsible for 6 per cent of all manufacturing investment but for less than 4 per cent of total manufacturing employment. The largest capital expenditures are being made by the industrial chemical industry, as the figures below show.

New Investment—Millions of Dollars					
Industry	1946	1947	1948	1949	1950
Acids, Alkalis and Salts.....	2.5	5.8	11.1	6.5	7.2
Fertilizers.....	2.5	1.4	1.7	1.8	2.6
Medicinal and Pharmaceutical Preparations.....	4.5	4.1	2.5	1.7	2.0
Paints and Varnishes.....	2.4	5.4	2.9	1.6	1.1
Primary Plastics.....	2.1	2.8	6.2	10.1	6.5
Other Chemical Industries....	5.6	14.2	17.5	16.1	13.4
Total.....	19.6	33.7	41.9	37.8	32.8

Typical projects on which large annual investment outlays were made reflect both the growing importance and the increased diversity of the chemical industry in the post-war period. Large annual expenditures of up to \$6 million each were made for a soap factory and plastics, industrial chemicals and fertilizer plants. Smaller but still important projects involved new and extended plant capacity for a producer of medicinal and pharmaceutical preparations in Ontario, vegetable oil mills in Manitoba and Saskatchewan, a paint factory in British Columbia and a plant making adhesives in Quebec.

*Trend of Investment.* Investment by the chemicals and chemical products industries followed the pattern of manufacturing investment in the non-war period of the last 25 years with one exception. This was in the depressed thirties, when the turning point of investment in the chemicals and chemical products industries was in 1932, one year earlier than for manufacturing industries generally. Activity in the chemical industry is greatly dependent on the level of economic activity in the country, but where new technological developments and discoveries make it necessary the industry may proceed with plant expansion or modernization of equipment, guided by long term considerations which may not be reflected in current and immediately foreseeable levels of employment and income.



<sup>1</sup> Table 38 reflects for the war years expansion for military purposes by means of facilities owned by private industry. Government-owned wartime investment is included in Tables 122 and 123. However, Table 38 includes investment by the Government-owned Polymer Corporation for the years commencing with 1946.



*Amplitudes of Investment Fluctuations.* Expansion of investment by the chemicals and chemical products industries has been relatively more substantial than that of most other manufacturing industries in prosperous periods like the late twenties and the forties while the decline in the early thirties was less pronounced than that of all manufacturing investment (see data below and Figure 31).

Period	New Investment—Per cent Change	
	Chemicals and Their Products Industries	All Manufacturing Industries
1926-1929.....	+178	+ 69
1929-1933.....	- 76	- 89
1933-1937.....	+ 92	+234
1937-1939.....	- 55	- 30
1939-1948.....	+1,132	+488
1948-1950.....	- 22	- 10

The significant rise in capital outlay by the industry in the post-war period, about a ten-fold increase between 1939 and 1950, was largely the result of important technological advances and strong demand. Profits of the industry and prices of the commodities it produces rose less rapidly in the post-war period than profits and prices in many other fields of manufacturing endeavour, as the following figures indicate.

Year	Net Profits of 23 Companies \$ Mill.	Wholesale Price Index
1939.....	9.6	100
1946.....	10.5	120
1947.....	13.4	136
1948.....	15.1	152
1949.....	15.8	155
1950.....	19.0	157

## MISCELLANEOUS MANUFACTURING INDUSTRIES

*Coverage of Industry.* What this industry group lacks in size—it contributes only one per cent to total manufacturing gross output—it makes up in variety of products. Major commodities produced include: brooms, brushes and mops, fabricated plastic products, musical instruments, pens, pencils, typewriter supplies, professional and scientific instruments and equipment, sporting goods and toys, and a miscellaneous array of articles such as beer dispensing equipment, artificial flowers, lamp shades, artificial ice, novelty goods and zippers.

*Size and Growth of Industry.* These industries employ about 27,000 people in some 900 establishments. Gross value of production amounted to \$177 million in 1950. Activity in this group of industries depends largely on sales in the domestic market. Imports of manufactured products falling in this general category are large relative to Canadian output, as the figures below indicate. Exports, on the other hand, are quite small.

Year	Millions of Dollars			
	Production	Imports	Exports	Domestic Supply
1939.....	42	16	6	52
1946.....	111	43	13	141
1947.....	117	53	17	153
1948.....	125	41	10	156
1949.....	156	53	7	202
1950.....	177	33	7	203

Since 1939 the number of establishments in this industrial group has risen by about 70 per cent and employment has more than doubled. Output has increased by four times in dollar terms in the same period (see below). Some 73 new medium and large-sized firms entered the field between 1946 and 1950, providing about 2,000 new jobs.

Year	New Investment		Establishments		Employment		Gross Value of Production		Net Value of Production	
	\$ Mill.	Per cent <sup>1</sup>	No.	Per cent <sup>1</sup>	Thous.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>	\$ Mill.	Per cent <sup>1</sup>
1939.....	1.6	1.6	559	2.3	12	1.8	42	1.2	24	1.6
1946.....	5.6	1.7	715	2.3	21	2.0	111	1.4	60	1.7
1947.....	5.7	1.1	812	2.5	23	2.0	117	1.2	68	1.6
1948.....	6.5	1.1	814	2.4	22	1.9	125	1.1	76	1.5
1949.....	5.9	1.1	893	2.6	26	2.2	156	1.3	94	1.8
1950.....	5.2	1.0	945	2.7	27	2.3	177	1.3	107	1.8

<sup>1</sup> Of total manufacturing.

*Investment by Industry.* Compared with other manufacturing industries, the miscellaneous group uses a great deal more labour than capital equipment. This is indicated by the fact that its contribution to total manufacturing investment was about one per cent, while in terms of employment it contributed about two per cent. Capital expenditures by the industry in the post-war period have been running at approximately \$6 million per year, with another \$3 million for repair and maintenance, or a total outlay of about \$9 million. Capital expenditure programs in the miscellaneous manufacturing industries are on a much smaller scale than in most other manufacturing industries. Typical outlays vary between \$10,000 and \$20,000. Projects include plant expansion and improvement for the manufacture of brushes, buttons and artificial ice. The largest post-war investment program in this group of industries has been carried out in the field of plant expansion for the manufacture of cameras, with outlays of over half a million dollars in some years. Substantial expenditures have also been made by producers of plastic products, electric signs, meters, clocks, lamps and cigarette lighters.

It bears emphasis that new investment data shown in Table 39 include an allowance for capital items charged

to operating expenses by *all* manufacturing industries. It is this item which accounts for the rather large amounts shown under new investment in Table 39. Estimates of new investment by miscellaneous manufacturing industries, *excluding* capital items charged to current account, are shown below.

New Investment			
Year	\$ Mill.	Year	\$ Mill.
1926.....	3.4	1946.....	5.6
1929.....	6.1	1947.....	5.7
1933.....	0.7	1948.....	6.5
1937.....	2.4	1949.....	5.9
1939.....	1.6	1950.....	5.2

### Detailed Information on Investment in Manufacturing Industries

More detailed information on the type and extent of capital and repair and maintenance expenditures made by the manufacturing industries in the years 1926 to 1951 will be found in Tables 24 to 39 in Part II.

## SECTION 4. INVESTMENT IN UTILITIES

### Public Utilities and Economic Development

Rapid Canadian economic development over the last century was in part facilitated and in part made possible through the growth of the major service industry usually described as "public utilities". Public utilities cover a wide variety of enterprises: power producers, e.g., of electricity and gas; transportation companies, e.g., air, motor and water transportation, pipe lines and steam and electric railways; communications systems, e.g., radio broadcasting, telephone and telegraph; storage facilities, e.g., grain elevators and warehouses; and other types of public utilities such as water and sanitary systems.

The common characteristic of all public utility enterprises is that they provide a service. One special feature of this service is that in the majority of cases its installation and maintenance costs are particularly high, making it a risky undertaking unless sufficiently large markets for the service are assured. Thus the very nature of the service provided by the industry encourages the growth of large-scale enterprises and the allocation of areas serviced, reducing duplication to a minimum reconcilable with efficient rendering of the service. For this reason utility industries have developed in Canada largely under supervision of Federal, provincial and municipal governments.

Utility industries are frequently described as public utilities. It bears emphasis, however, that public utility enterprises are not necessarily publicly owned.

In fact, about one-half of the capital expenditures currently made by this group of industries in Canada come from privately owned public utilities, all of which are subject to varying degrees of regulation by government authorities. The other half of the investment is made up by publicly owned utilities, the major portion by systems under provincial jurisdiction (see Section 8).

### Growth of Public Utilities

Even before Confederation governments placed great emphasis on the development of utilities in the transportation field in order to stimulate economic development and to encourage a high degree of commercial enterprise in the St. Lawrence region. After Confederation extensive rail and water transportation facilities were created, in part with public assistance and in part directly by government enterprise. These hastened the settlement of empty spaces, aided in greater utilization of natural resources and helped to establish continuing economic inter-relationships between widely scattered communities. Development of transportation facilities was the dominant feature of utility expansion in the nineteenth century in Canada, but as that century drew to a close other types of communication development came to the fore, particularly telegraphs and telephones. This growth in turn was overshadowed early in the twentieth century by what was to become one of Canada's major utilities: hydro-electric power. The growth of electric power facilities was particularly

speeded up by the industrial expansion that took place in Canada during World War I (see p. 36) and the decided trend towards greater use of electricity for commercial, community and home use. Storage facilities also became important in this period, particularly grain elevators needed to assist in the shipment abroad of an almost continuously increasing volume of grain.

In the years that followed World War I, and particularly in the twenties, not only did existing utilities continue to expand but entirely new enterprises came into operation. Examples are motor transportation (e.g., trucks, buses and taxis), air transportation and radio broadcasting. Even in the thirties, when most of the utility expansion slowed down considerably, new technical developments in certain sectors, e.g., radio broadcasting and air transportation, made further growth almost inevitable.

Heavy demand for raw materials and industrial products following the outbreak of World War II caused a new spurt in utility development, the most spectacular growth taking place in the hydro field. Notable as utility expansion was during World War II, it was able to concentrate only on immediate requirements and much expansion and improvement of utility equipment and installations had to be postponed until the end of the war.

When hostilities ended in 1945 Canadian public utilities embarked on the biggest expansion, modernization and replacement program in their history. Almost all types of utilities participated. New types of enterprise, such as oil and gas pipe lines, became important for resources development and for industrialization generally. Still continuing strong after six years, this expansion of Canadian utility industries received further stimulus in 1950 from the increase in industrial activity associated with defence preparedness.

As a result of their own growth utility industries in Canada have not only made material contributions to the more efficient use of resources and to a stepped-up rate of industrialization, but have also become a major field of employment and an important source of income. At mid-1950 all utility enterprises in Canada provided employment for an estimated 414,000 persons, or over 8 per cent of the total number of people working in the country.

Year	Private and Public Utilities— Employment	
	Number Thous.	Per cent of Total Civilian Employment
1921.....	190	6.4
1931.....	284	7.8
1939.....	252	6.2
1949.....	419	8.3
1950.....	414	8.3

Employment in 1950 represented a doubling of the number employed in the industry over the last three decades and a two-thirds increase since 1939. National income originating in utility industries increased almost three-fold since 1939 and exceeded \$1.4 billion in 1950, or about 10 per cent of the total national income in that year.

Year	Private and Public Utilities— National Income	
	\$ Mill.	Per cent of Total National Income <sup>1</sup>
1939.....	504	12
1949.....	1,337	10
1950.....	1,434	10

<sup>1</sup> At factor cost.

### Investment and Gross Revenues

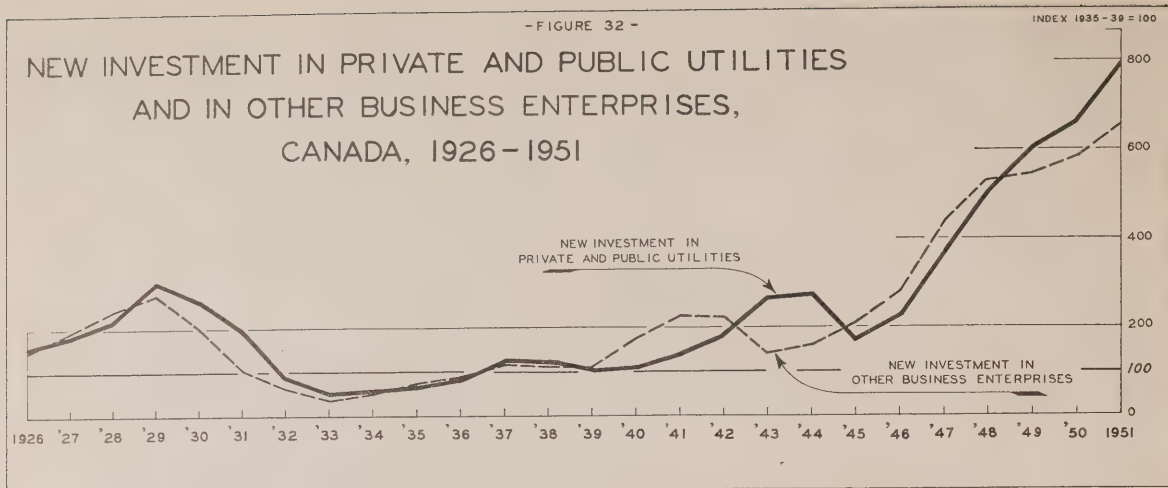
In addition to their important contributions in terms of jobs and income payments public utility industries are the most important purchasers of capital goods of any group in the business sector. In 1950, for example, new investment by public utilities amounted to \$744 million. It exceeded investment of manufacturing industries by 43 per cent, of primary industries and construction industry by 11 per cent, and of trade, finance and commercial services by 106 per cent. As to capital expenditures by groups other than business enterprises, public utility investment was 57 per cent greater than corresponding direct government outlay and more than three times that made by institutions. Of all the major sectors only residential investment was more important than public utility investment, exceeding the latter by about 14 per cent in 1950. A large portion of public utility capital expenditures is financed by borrowing and, when revenues are buoyant, from retained earnings. In 1950 gross revenues of all public utility enterprises are estimated to have exceeded \$1.7 billion. Records available covering 80 per cent of total investment by all public utilities in 1950 indicate that the companies involved had a gross income, from total sales of services rendered and other sources, of more than \$1.5 billion in that year.

That public utilities require substantial investment in relation to the service which they provide is indicated by the fact that capital, repair and maintenance outlays by all public utilities equalled about two-thirds of the gross revenue received by this group of enterprises in 1950. This is slightly below the proportion that prevailed in 1929, the peak year of utility investment in the pre-war period. However, in the inter-war period the ratio varied greatly. At the bottom of the depression in the thirties the proportion was only about one-third (see below).



- FIGURE 32 -

# NEW INVESTMENT IN PRIVATE AND PUBLIC UTILITIES AND IN OTHER BUSINESS ENTERPRISES, CANADA, 1926-1951



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE.

Year	New Investment, Repair and Maintenance—Selected Utilities <sup>1</sup>	
	\$ Mill.	Per cent of Gross Revenues
1929.....	538.0	69
1933.....	164.3	34
1937.....	267.4	44
1939.....	255.3	41
1949.....	981.8	68
1950.....	1,005.4	65

<sup>1</sup> Covers 80 per cent of total new investment and repair and maintenance expenditures of all private and public utilities in 1950.

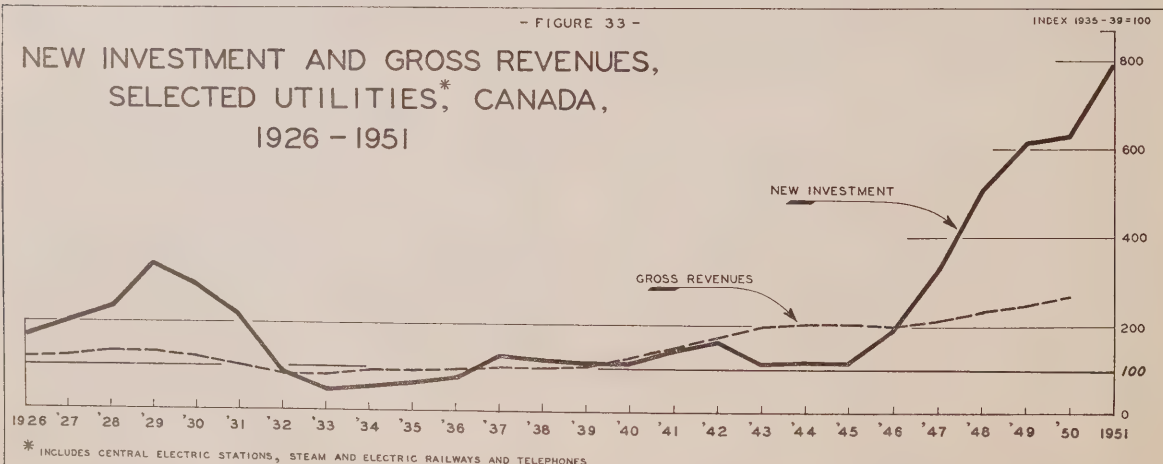
Investment by public utilities underwent substantial fluctuations in the 25-year period under review—greater in fact than fluctuations in the total capital expenditures of all other business enterprises (see Figure 32). While utilities investment doubled between 1926 and 1929, it declined by 85 per cent in the succeeding four years. The most notable expansion occurred between 1939

and 1950, when investment by public utilities reached a peak at almost five times its pre-war level. Even allowing for a doubling in prices of capital goods in this period, the *volume* of investment by public utilities in 1950 would be about two and one-half times what it had been in 1939. Expenditures on repair and maintenance of public utility equipment and installations and gross revenues received by utility enterprises fluctuated on a lesser scale than capital expenditures, as the data below show (see also Figure 33).

Period	Selected Utilities—Per cent Change		
	New Investment	Repair and Maintenance	Gross Revenues
1926-1929.....	+ 98	+ 15	+ 14
1929-1933.....	- 85	- 47	- 38
1933-1937.....	+158	+ 24	+ 25
1937-1939.....	- 17	+ 6	+ 4
1939-1950.....	+490	+163	+146

- FIGURE 33 -

# NEW INVESTMENT AND GROSS REVENUES, SELECTED UTILITIES\*, CANADA, 1926 - 1951



\* INCLUDES CENTRAL ELECTRIC STATIONS, STEAM AND ELECTRIC RAILWAYS AND TELEPHONES

ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE.

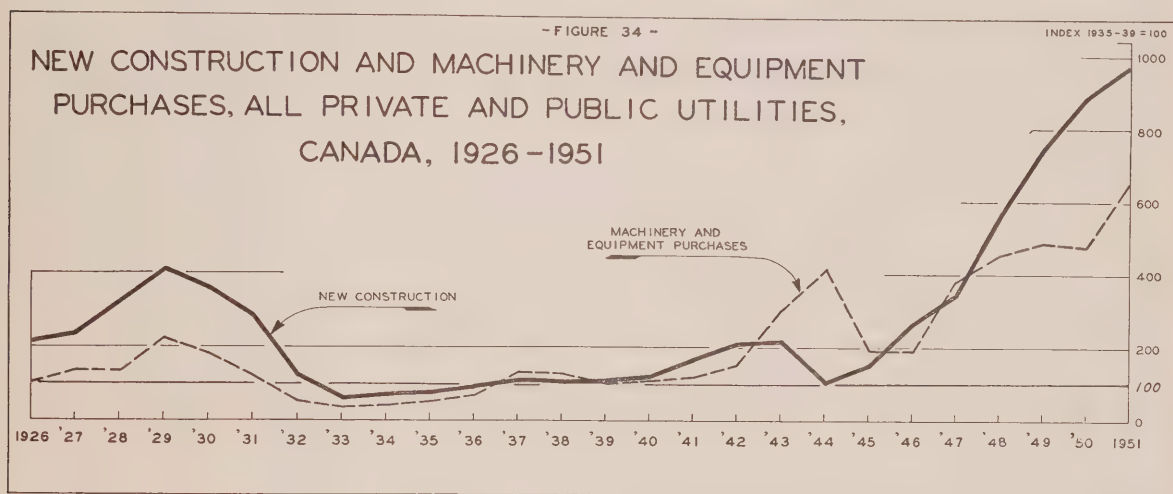
### Investment by Type of Expenditure

During 1946 to 1950 outlay on new investment projects by public utility enterprises averaged more than \$500 million annually. Of this amount a little over one-half was spent on construction undertakings, including hydro dams, bridges, improvement of railway road beds, telephone exchanges, waterworks and sewage disposal systems, airstrips and harbour facilities. The remaining expenditures were made for the purchase of a variety of equipment, e.g., electric transformer and generating equipment, steam and electric railway rolling stock, telephone and telegraph equipment, filtration equipment, ships, aircraft, trucks, buses and broadcasting equipment.

On the whole expenditures on construction have fluctuated more substantially than purchases of machinery and equipment (see Figure 34). This was

particularly marked in the last decade when there was urgent need for large new installations, especially in the hydro field (see below).

Period	All Private and Public Utilities— Per cent Change	
	New Construction	New Machinery and Equipment Purchases
1926-1929.....	+ 87	+116
1929-1933.....	- 85	- 83
1933-1937.....	+ 84	+253
1937-1939.....	- 3	- 22
1939-1950.....	+714	+353



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE

### Investment by Type of Ownership

Ownership of utility enterprises, while about equally divided between private groups and public authorities, varies considerably between regions and different types of utility systems. In the hydro field the majority of utilities are publicly owned. In railways and telegraphs publicly owned systems are responsible for somewhat more than one-half of the capital expenditures presently under way. As far as electric railways are concerned, public ownership has been growing, and now little more than one-half of capital outlay is being made by privately owned utility corporations. Private ownership continues to dominate the telephone field. Waterworks systems are practically all publicly owned. Air transportation is largely in public hands, although recently investment by private companies has become more important. A large proportion of water transportation, motor carriers and storage facilities is in private hands.

In general the statement that public investment has fluctuated less in Canada than private investment is confirmed by the record of the last 25 years (see Table 6 in Part II). There are, however, important exceptions.

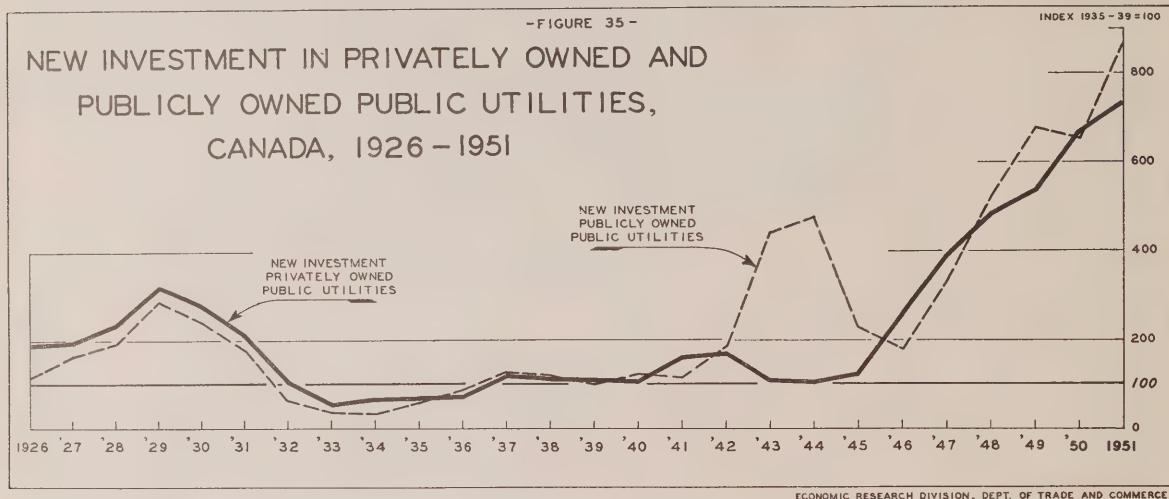
In the utilities field, for example, investment by privately owned utility corporations has fluctuated to a lesser degree than investment by publicly owned utilities, as Figure 35 shows (see also data below).

Year	New Investment—Privately Owned Public Utilities	
	\$ Mill.	Per cent of Total Private and Public Utilities
1929.....	196.0	57
1933.....	34.3	63
1937.....	75.6	54
1939.....	66.8	56
1949.....	329.3	49
1950.....	407.5	55

In the publicly owned utilities sector the relative importance of different governments in influencing the total volume of investment has changed notably over

the last several decades.<sup>1</sup> The outstanding feature is the new importance of provincially operated utilities. These accounted for 61 per cent of total new investment by publicly owned utilities in 1950. Twenty-one years earlier, at the height of economic activity in the inter-war period, they contributed only 16 per cent. As provincially owned utilities became more significant public utilities controlled by the Federal Government decreased in relative importance, their contribution to total investment of publicly owned utilities declining from 69 per cent in 1929 to 23 per cent in 1950. The share of municipally owned utilities in the capital program has changed only slightly over this period, amounting to 16 per cent in 1950. Investment by municipally owned utilities appears to have fluctuated less significantly (see below).

Year	New Investment—Publicly Owned Public Utilities			
	\$ Mill.	Per cent		
		Federal Government Operated Utilities	Provincial Government Operated Utilities	Municipal Government Operated Utilities
1929.....	148.1	69	16	15
1933.....	20.2	41	22	37
1937.....	65.2	61	21	18
1939.....	53.5	51	27	22
1949.....	349.6	22	59	19
1950.....	336.2	23	61	16



### Investment by Type of Enterprise

Among the six groups of utility enterprises for which separate estimates of investment are provided in the table below, central electric stations and gas-works are the most important, contributing 47 per cent of total new investment by all private and public utilities in 1950. Steam railways and telegraphs, and telephone enterprises are the two groups next in importance, making up 16 and 15 per cent of the total respectively. The "other public utilities" group including water and air transportation, motor carriers, grain elevators, broadcasting, warehousing and oil pipe lines also accounted for 16 per cent of the total.

The importance of different utility enterprises in Canadian capital expenditures varies as economic conditions change and new advances are made in resources development and in the process of industrialization and urbanization. For example, before World War II pipe lines were of minor significance in the Canadian transportation field, but with the development of oil and gas in Alberta this type of utility has become important. Technological changes may also have a

significant impact on the relative importance of utility enterprises as a field of investment. For example, large capital expenditures are being made by the railways to replace steam engines with diesel locomotives, and by the Hydro-Electric Power Commission of Ontario in converting frequency-sensitive equipment from 25 to 60 cycles.

Type of Enterprise	New Investment—All Private and Public Utilities — 1950	
	\$ Mill.	Per cent
Central Electric Stations and Gas- Works.....	344.5	47
Steam Railways and Telegraphs...	121.4	16
Electric Railways.....	23.3	3
Telephones.....	113.0	15
Waterworks.....	24.4	3
Other Public Utilities.....	117.1	16
Total.....	743.7	100

<sup>1</sup> For a list showing publicly owned utilities under Federal, provincial, and municipal jurisdiction respectively, see *Public Investment and Capital Formation*, p. 15.



Capital expenditures by utility enterprises show great similarity to the behaviour of investment by all private individuals and corporations and public agencies. There is one exception to this in the pre-war period. A low point of public utility investment occurred in 1939, just as in manufacturing, while the trough of investment as a whole in the latter part of the thirties occurred in 1938. However, much greater deviation from the aggregate pattern occurred in individual sectors of the utility industry. This is particularly marked in the pre-war period. In the post-war period utility investment continued upward and so did total private and public investment. In the absence of any overall turning point in post-war capital expenditures it cannot yet be established whether the conformity of the utility investment pattern apparent in the pre-war period is continuing in the post-war period. All that can be said is that the similarity of the investment pattern was maintained during 1946 to 1950.

Of the six utility groups for which separate pre-war data are available one group, steam railways and telegraphs, has an investment pattern similar to that indicated for aggregate utility investment, and in fact this group is largely responsible for the pattern: peaks in 1929 and 1937 and troughs in 1933 and 1939. Electric railways and other utilities follow the above investment pattern except for the high point of 1937, which in these two fields occurred one year later. Investment by central electric stations and telephones conforms at two turning points and differs at the other two, while waterworks seem to have an investment pattern of their own (see below). Like manufacturing, the utility group is made up of diverse types of enterprises which are in various stages of development and lack homogeneity, a fact not apparent from an appraisal of the aggregate of their investment. However, total capital expenditures by all utility enterprises show a

certain conformity with the overall investment pattern. Among the reasons for this is the heavy dependence of the utility industry on domestic demand for its services. When economic conditions are unfavourable the demand for utility services declines and the records at such times show that there has been little incentive for expansion and improvement of existing capital facilities. There are exceptions to this, particularly when new technological developments call for substantial outlay with little regard to the phase of the business cycle in which the economy may find itself. A notable example is the expansion of broadcasting and air transportation facilities in the thirties.

### Investment in Central Electric Stations and Gas-Works

Canada, with less than one per cent of the world's total population, produced in 1950 about 6 per cent of the world's estimated electric power output. In terms of absolute output Canada was outranked only by the United States, the United Kingdom and possibly the U.S.S.R. On a per capita basis, however, Canadian electric utility power output is about one and three-quarters that of the United States (monthly power output averaged 306 kwh. in Canada in 1950 as compared with 181 kwh. in the United States). Further, electricity is generated in Canada on an average at about one-half the cost prevailing in the United States, reflecting the economies resulting from relatively greater use of hydro power in Canada. The only country outranking Canada in terms of electric power production per capita was Norway, with 442 kwh. reported in 1950.

To illustrate the particularly rapid growth of this service industry in Canada: power production of central electric stations in 1950<sup>1</sup> was more than nine times what it was after World War I, about three times the volume in 1929, and three-quarters greater than the output when World War II broke out. By way of comparison the volume of Canadian manufacturing production has about tripled since 1919 and population has risen by close to two-thirds. Tremendous as electric power expansion has been over the last several decades, less than one-quarter of Canada's hydro power potential appears to have been utilized.

The large power development undertaken in Canada has involved substantial capital outlay on construction of installations and purchase of equipment. Between 1939 and 1950 alone new investment rose from \$31 million in 1939 to \$345 million in 1950, equal to 47 per cent of total private and public utility investment in that year. In the same period gross revenues from the sale of electric power doubled and per capita consumption of power increased by about one-half, while employment in the industry almost doubled (see below).

Utility	Pre-War Turning Points— New Investment			
	High 1929	Low 1933	High 1937	Low 1939
Central Electric Stations and Gas-Works.....	F	C	F	C
Steam Railways and Tele- graphs.....	C	C	C	C
Electric Railways.....	C	C	F	C
Telephones.....	C	F	C	L
Waterworks.....	C	F	F	F
Other Utilities.....	C	C	F	C

L—Leading; C—Conforming; F—Following.

<sup>1</sup> There were some 660 stations operating in that year.

Year	New Investment <sup>1</sup>		Employment Thous.	Gross Revenue from Sale of Electric Power \$ Mill.	Output of Central Electric Stations Bill. Kwh.	Annual Rate of Output at Maximum Capacity Bill. Kwh.	Ratio of Output to Maximum Capacity Per cent	Per Capita Consumption of Electric Power Thous. Kwh.
	\$ Mill.	Per cent of Total Private and Public Utilities						
1939.....	31.3	26	19	152	28.3	57.6	50	2.34
1946.....	68.4	27	25	226	41.7	72.6	57	3.19
1947.....	122.5	30	27	240	43.4	71.1	61	3.29
1948.....	234.0	41	29	257	42.4	74.4	57	3.16
1949.....	319.9	47	33	282	46.7	78.8	59	3.39
1950.....	344.5	47	34	309	50.9	86.1	59	3.54

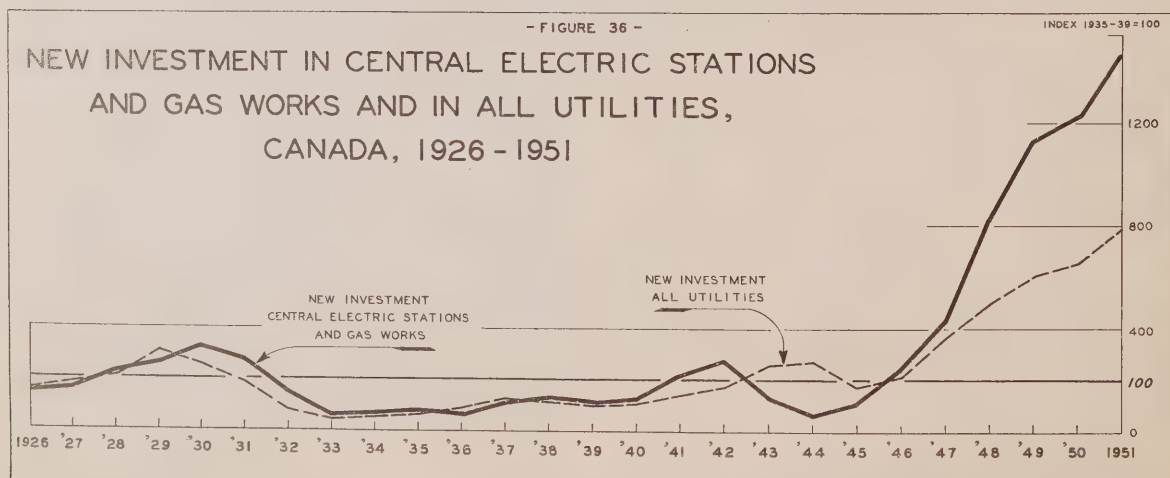
<sup>1</sup> Of central electric stations and gas-works.

One notable feature of hydro expansion in the post-war period was that it continued unabated although costs of construction and equipment and operating costs were increasing, while prices of its product to domestic consumers declined to 1948 (see below). This was mainly because increasing use was being made of existing and newly developed power facilities. In 1949, however, electricity costs were turning upwards again but were in 1950 still well below those of pre-war.

Before the war investment by central electric stations and gas-works underwent less severe fluctuations than investment by utilities as a group. However, since 1939 investment by central electric stations has increased more rapidly than capital expenditures by the rest of the utility field (see Figure 36). In no small measure this is due to the endeavour of the electric utility industry to keep pace with the very rapid rate of industrialization experienced in Canada in this period (see below).

Year	Index of Average Cost of Electricity Per Kwh. to Consumers	Period	New Investment—Per cent Change	
			Central Electric Stations <sup>1</sup>	All Utilities
1939.....	100.0	1926-1929.....	+ 75	+ 98
1946.....	85.3	1929-1933.....	- 78	- 84
1947.....	84.2	1933-1937.....	+ 89	+158
1948.....	84.2	1937-1939.....	- 1	- 15
1949.....	84.6	1939-1950.....	+1,001	+518
1950.....	87.7			

<sup>1</sup> Including gas-works.



In 1950 privately owned central electric stations and gas-works spent some \$138 million on new investment, contributing 40 per cent of total new investment by both private and public utilities (see below).

Year	New Investment—Private Central Electric Stations <sup>1</sup>	
	\$ Mill.	Per cent of Total Private and Public Central Electric Stations <sup>1</sup>
1929.....	43.0	57
1933.....	9.8	59
1937.....	13.5	43
1939.....	13.0	42
1949.....	91.0	28
1950.....	137.9	40

<sup>1</sup> Including gas-works.

The remaining \$207 million involved capital expenditures made by publicly owned central electric stations and gas-works, the bulk, 91 per cent, coming from hydro agencies under provincial jurisdiction. Electric utilities operated by municipal governments contributed the remaining 9 per cent. This type of utility has declined in relative importance; in 1929 its share in the total Canadian expansion program in the hydro field was about five times as great (see below).

Year	New Investment—Public Central Electric Stations <sup>1</sup>		
	\$ Mill.	Per cent	
		Provincial Government Operated	Municipal Government Operated
1929.....	32.5	57	43
1933.....	6.9	48	52
1937.....	18.1	62	38
1939.....	18.3	66	34
1949.....	228.9	84	16
1950.....	206.6	91	9

<sup>1</sup> Including gas-works.

## Investment in Steam Railways and Telegraphs

Steam railways are the most important utility in Canada in terms of employment, and presently rank second in terms of new investment. Railways are also Canada's largest transportation enterprise. Through a network of some 58,000 miles of track they link a multitude of communities across the country from the Atlantic to the Pacific. Considering the expanse of the country and the sparse settlement over wide areas, investment in railway development and maintenance in Canada has been very substantial in relation to population. In fact Canada is among the countries with the highest railway overhead in the world.<sup>1</sup> There are two major railway systems in Canada, the Canadian National Railways (publicly owned) and Canadian Pacific Railways (privately owned), and a number of smaller companies. The latter are in part under provincial jurisdiction and in part privately owned, mainly by primary producers, e.g., of coal and iron ore. The Canadian National Railways is the largest company not only in Canada but also in the Americas in terms of mileage of railway track in operation.

Expansion and improvement of the railway system and purchases of new equipment and rolling stock reached a peak in the late twenties which has not been matched at any time in the last twenty-five years (see Table 52). Capital outlay in 1929 amounted to \$188 million, while in 1949 and 1950 new investment was at an annual rate of about \$130 million. In volume terms the difference is much greater, for costs of capital goods have almost doubled over this period. If allowance is made for price changes railway investment at the peak of the twenties was more than twice what it has been at any time in the post-World War II period. In the twenties railway investment was the most important field of utility investment. It involved more than twice the outlays then being made on the expansion of the hydro system, which is now Canada's most rapidly growing utility. The declining importance of capital expenditures by railways is indicated by the data below. In 1939 investment by steam railways (and telegraphs, which are included in the estimates) contributed 37 per cent of total investment by all private and public utilities. But by 1950 that proportion had declined to 16 per cent. While investment by railways has not kept up with capital expenditures by other utilities the railways have spent substantial sums for the modernization and expansion of facilities in the post-war period. Capital outlay in 1950 was almost three times what it had been in 1939. Over the same period employment provided by steam railways rose by about one-half, as did revenue ton miles (freight carried) and passenger miles per capita. Associated with this increase in railway business gross earnings from operation also rose by two and one-half times over the period (see below).

<sup>1</sup> To illustrate: Australia and Canada are the two countries with the largest railway systems in relation to their population. On the basis of miles of track per capita ten industrially advanced countries line up as follows: Australia, 3.97; Canada, 3.44; New Zealand, 1.99; United States, 1.62; Sweden, 1.54; France, .64; United Kingdom, .43; Belgium, .37; Italy, .23; Netherlands, .20. The figures relate to 1946 but there has apparently been little change in the relative positions in recent years. All data except for Australia were obtained from the *Swedish Statistical Year Book*, Central Statistical Bureau, Stockholm, 1948, p. 384. Data for Australia are from *Quarterly Summary of Australian Statistics*, Commonwealth Bureau of Census and Statistics, Canberra, December 1948, p. 70.



Year	Investment <sup>1</sup>		Employment Thous.	Gross Earnings from Operations \$ Mill.	Revenue Ton Miles Bill.	Passenger Miles	
	\$ Mill.	Per cent of Total Private and Public Utilities				Bill.	Per Capita
1939.....	44.6	37	128	367	31.5	1.8	155
1946.....	57.4	23	180	719	55.3	4.6	378
1947.....	81.3	20	184	785	60.1	3.7	297
1948.....	130.6	23	190	876	59.1	3.5	270
1949.....	135.2	20	192	894	56.3	3.2	236
1950.....	121.4	16	189	948	55.3	2.8	202

<sup>1</sup> Of steam railways and telegraphs.

While both investment and costs of operation increased notably from 1939 to 1950, railway fares and freight charges rose less rapidly, as shown by the indices of average passenger receipts per passenger mile and average freight receipts per freight ton mile.

Year	Index of Average	
	Passenger Receipts Per Passenger Mile	Freight Receipts Per Freight Ton Mile
1939.....	100.0	100.0
1946.....	104.4	105.7
1947.....	114.1	111.0
1948.....	116.5	130.1
1949.....	129.1	137.7
1950.....	135.4	151.2

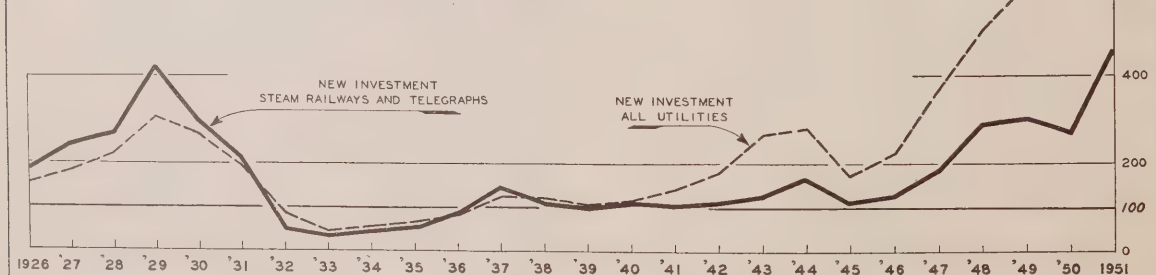
In the pre-war period investment by railway companies fluctuated more than capital outlay by most other utilities (see Figure 37). The rapid expansion in the late twenties was followed by a reduction of investment to almost negligible proportions at the bottom of the depression in 1933. Over the last decade, as mentioned earlier, expansion by railways has been at

a slower rate than that of some other utilities. Supply difficulties and rapidly rising costs in the early post-war period and again after mid-1950 were among the factors influencing the railway investment pattern in the last five years. Another element was the impact of technological development, such as the switch-over from steam engines to diesel locomotives, which required a period of plant expansion and re-tooling before large quantities of new railway equipment could be delivered. Financial considerations and lengthy negotiations about rate changes were other elements affecting investment decisions of railway companies in the post-war period (see below).

Period	New Investment— Per cent Change	
	Steam Railways and Telegraphs	All Utilities
1926-1929.....	+125	+ 98
1929-1933.....	- 92	- 84
1933-1937.....	+331	+158
1937-1939.....	- 32	- 15
1939-1950.....	+172	+518

- FIGURE 37 -

# NEW INVESTMENT IN STEAM RAILWAYS AND TELEGRAPHS AND IN ALL UTILITIES, CANADA, 1926 - 1951



Investment by privately owned steam railways and telegraphs have accounted for slightly less than one-half of investment by all privately and publicly owned steam railways and telegraph companies throughout most of the period. However, preliminary estimates for 1950 indicate that in that year the proportion fell to 42 per cent (see below).

Year	New Investment—Private Steam Railways and Telegraphs	
	\$ Mill.	Per cent of Total Private and Public Steam Railways and Telegraphs
1929.....	88.1	47
1933.....	6.9	45
1937.....	30.7	47
1939.....	20.8	47
1949.....	64.3	48
1950.....	51.0	42

### Investment in Electric Railways

In terms of investment electric railways represent one of the smaller utilities. In 1950 investment by this group amounted to only 19 per cent of that of steam railways and telegraphs and 3 per cent of the investment of all public and private utilities. But in terms of service electric railways perform an essential function in Canada's larger cities and towns. In 1950 some 30 systems were in operation using about 1,400 miles of tracks. These utilities provide street car and related bus services, and thus are responsible for the bulk of urban transportation. While there has been some switch from street car systems to bus services in recent decades activity in the electric railway field has increased. For example, employment in this field rose by more than one-half between 1939 and 1950. In the same period both the number of passengers carried and the gross revenues of electric railway companies doubled (see below).

Year	Investment <sup>1</sup>		Employment Thous.	Gross Revenues \$ Mill.	Passengers Carried Bill.
	\$ Mill.	Per cent <sup>2</sup>			
1939.....	2.8	2.3	14	43	0.6
1946.....	8.9	3.5	22	88	1.3
1947.....	21.7	5.3	23	87	1.3
1948.....	19.0	3.4	23	89	1.3
1949.....	19.0	2.8	22	91	1.2
1950.....	23.3	3.1	22	95	1.2

<sup>1</sup> Of electric railways.

<sup>2</sup> Of total private and public utilities.

With a great deal of under-maintenance to be made good, capital expenditures by electric railways in the post-war period have been notably higher than either before or during World War II (see Table 55). As

against this large program of expansion and improvement of facilities and equipment railway fares have increased only moderately, as the data below indicate.

Year	Index of Street Car Fares
1939.....	100.0
1946.....	99.9
1947.....	100.2
1948.....	104.2
1949.....	109.2
1950.....	112.3

While not a very important factor in total utility investment either before World War II or in recent years, capital expenditures by electric railways have undergone smaller fluctuations in the pre-war period than investment of other major utility enterprises (see Figure 38). However, although the comparatively small expenditures of the thirties make the percentage increase of the last decade seem large, the resulting outlay is still moderate compared with investment by other utilities (see below).

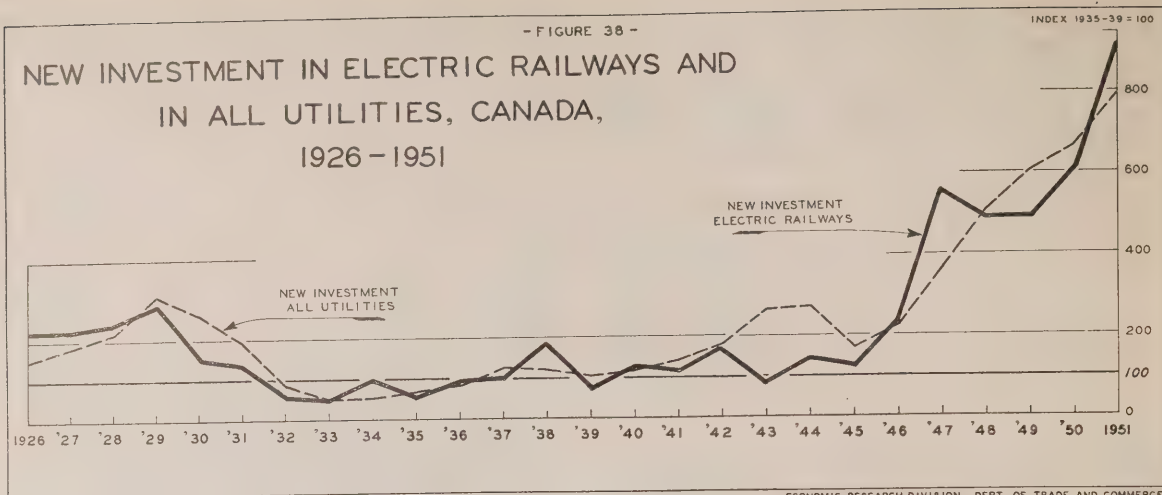
Period	New Investment—Per cent Change	
	Electric Railways	All Utilities
1926-1929.....	+ 30	+ 98
1929-1933.....	- 84	- 84
1933-1937.....	+117	+158
1937-1939.....	- 28	- 15
1939-1950.....	+732	+518

Investment by privately owned electric railways used to be responsible for the major portion of investment by all electric railways. However, as one local system after another changed hands and came under municipal ownership, investment in recent years by publicly owned electric railway systems has become increasingly important (see below).

Year	New Investment—Private Electric Railways	
	\$ Mill.	Per cent of Total Private and Public Electric Railways
1929.....	8.6	77
1933.....	1.3	72
1937.....	2.6	67
1939.....	1.5	54
1949.....	9.2	48
1950.....	12.5	54

- FIGURE 38 -

# NEW INVESTMENT IN ELECTRIC RAILWAYS AND IN ALL UTILITIES, CANADA, 1926 - 1951



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE.

## Investment in Telephones

From the latter part of the nineteenth century up to the present telephones have been Canada's most important sector of communication utilities. Even the rapid development of radio broadcasting in the last three decades, far from having any restraining effect, contributed to further growth of telephone enterprises. Canada is today, with some 20 telephones per hundred population, among the leading countries in the world in terms of installed facilities.<sup>1</sup>

It has been emphasized earlier that in the post-war period telephone companies were Canada's third most

important group of enterprises in terms of utility investment. Post-war capital expenditures of telephone companies have been more extensive than any previous program carried out by this utility group (see Table 58). The growth is particularly marked since 1939, when investment increased by more than four times, and gross revenues and employment were in 1950 almost three times what they had been in 1939. The number of telephones in service increased from 1.4 million in that year to about 2.9 million in 1950. Over the same period the number of calls rose from 2.8 billion to 5.0 billion (see below).

Year	Investment <sup>1</sup>		Employment Thous.	Gross Revenues \$ Mill.	Number of Tele- phones Mill.	Number of Calls <sup>2</sup> Bill.	Telephones Per 100 Popula- tion
	\$ Mill.	Per cent of Total Utilities					
1939.....	23.3	19	18	67	1.4	2.8	12.4
1946.....	44.6	18	33	121	2.0	3.6	16.5
1947.....	81.3	20	36	135	2.2	3.8	17.7
1948.....	103.6	18	39	151	2.5	4.1	19.0
1949.....	114.7	17	42	169	2.7	4.6	19.9
1950.....	113.0	15	45	195	2.9	5.0	21.1

<sup>1</sup> Of telephone companies.

<sup>2</sup> Covers local and long distance calls.

Large as the expansion of telephone facilities was in the post-war period, by 1950 it had by no means caught up with the rapid growth of population and urban communities nor with the extended use of telephone facilities as industrialization and domestic commerce increased. In addition higher living standards were reflected in heavy demand for telephones in homes.

A great deal of the post-war telephone expansion was financed through the sale of stocks and bonds and the remainder largely from depreciation reserves. The expansion was carried out without, up to 1949, raising significantly telephone rates to consumers. Some further increases, however, came into effect in 1950 (see below).

<sup>1</sup> This is indicated by the following data on telephones per hundred population: United States, 27.1; Sweden, 22.8; Canada, 19.6; Hawaii, 19.1; New Zealand, 18.2; Switzerland, 18.2; Denmark, 15.8; Bermuda, 15.6; Monaco, 14.0; Iceland, 13.9; Norway, 13.3; Australia, 13.2; Alaska, 11.2; United Kingdom, 10.2; Finland, 7.7; Luxembourg, 7.6; Belgium, 7.5; Trieste, 6.9; Netherlands, 6.9; France, 5.6; Austria, 5.3; Western Germany, 4.4; Argentina, 4.4. Source: *Telephone Statistics of the World*, New York, American Telephone and Telegraph Company, January 1, 1950.

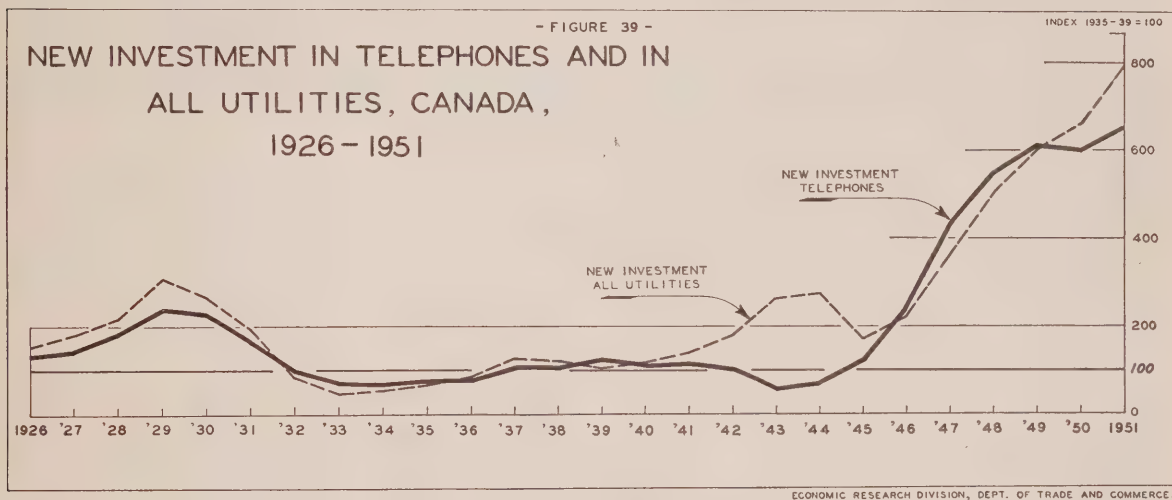


Year	Price Index— Consumers' Telephone Service
1939.....	100.0
1946.....	102.7
1947.....	102.7
1948.....	102.9
1949.....	103.1
1950.....	110.4

Telephone companies have not varied their capital expenditures as much as most other utility enterprises (see Figure 39). They have therefore contributed less to the substantial fluctuation of investment by the total utility group than have other types of utility enterprises (see above).

Period	New Investment—Per cent Change	
	Telephones	All Utilities
1926-1929.....	+ 74	+ 98
1929-1933.....	- 70	- 84
1933-1937.....	+ 53	+158
1937-1939.....	+ 12	- 15
1939-1950.....	+385	+518

The bulk of capital expenditures is made by privately owned telephone companies. In 1950 they contributed 87 per cent to total investment by all telephone companies (see below). Publicly owned companies are more important in the western part of Canada, where provincial governments played a large part in the development of telephone systems.



Year	New Investment—Private Telephone Companies	
	\$ Mill.	Per cent of Total Pri- vate and Public Telephone Companies
1929.....	39.5	89
1933.....	12.6	93
1937.....	19.2	92
1939.....	21.2	91
1949.....	100.5	88
1950.....	98.4	87

### Investment in Waterworks

Another of the smaller utilities is waterworks (and sewage disposal systems) which are operated by municipal boards and agencies. In 1950 waterworks contributed 3 per cent to total investment by private and public utilities. In some of the larger metropolitan

centres separate water systems are being maintained by the individual municipalities which make up the greater city area, but in recent decades, when the growth of metropolitan communities has been particularly rapid, the tendency has been towards unification of different water systems within one large urban community. Examples of this type are the water districts of Vancouver, Victoria and Winnipeg. In other places, like Montreal, Toronto and Ottawa, city waterworks also service some outlying areas with water supplied on a fee basis.

Waterworks are an important sector of total municipally owned utilities. Over the last 25 years they have contributed between one-quarter and two-fifths of total capital expenditures made by municipal government-operated utilities (see below). New investment by waterworks was much smaller than capital outlays by municipal government departments, being only one-fifth as great in 1950. This indicates that the major outlay is going into the expansion and improvement of urban street systems and related facilities.

Year	New Investment—Municipal Waterworks		
	\$ Mill.	As a Percentage of	
		Municipal Government-Operated Utilities	Municipal Government Departments
1929.....	4.8	22	13
1933.....	3.3	43	13
1937.....	3.4	28	13
1939.....	3.9	33	15
1949.....	17.6	27	18
1950.....	24.4	45	22

### Investment in Other Private and Public Utilities

There remains a group of utility enterprises described as "other private and public utilities" for which data for the period 1926-1951 are shown in aggregate in Table 62 and in detail for the years 1945-1951 in Table 65. This group of utilities, which in 1950 contributed 16 per cent to total investment by private and public utilities, includes motor carriers, water transportation, grain elevators and broadcasting, in the order of importance of their capital expenditures (see below). There is, finally, a miscellaneous group of utilities including air transportation, warehousing and pipe lines. The last have come very much to the fore in recent years with the discovery of new oil and gas reserves in Alberta.

Type of Utility	New Investment—1950	
	\$ Mill.	Per cent
Water Transportation.....	23.2	20
Motor Carriers.....	18.2	16
Grain Elevators.....	7.2	6
Broadcasting.....	2.5	2
Miscellaneous Utilities.....	59.6	51
Capital Items Charged to Operating Expenses.....	6.4	5
Total.....	117.1	100

Capital outlay by this group of utilities amounted to \$117 million in 1950, about eight times the expenditures made in 1939 and almost six times those made in 1929. As indicated in Table 64, substantially higher capital outlay is shown for the years 1942 to 1944 than for any other period. This is explained by the fact that in these years the United States Government spent considerable sums on a network of oil pipe lines in the Yukon-Alaska region, with a large portion of the capital outlay made on Canadian territory. Operation of this system, known as the Canol project, was discontinued after the war and some of the assets were sold to a private corporation operating in Canada. Capital expenditures made between 1942 and 1944 on the part of this project situated in Canada are included in Tables 62 and 64.

Year	New Investment—Other Private and Public Utilities	
	\$ Mill.	Per cent of Total Private and Public Utilities
1929.....	20.2	6
1933.....	3.8	7
1937.....	15.1	11
1939.....	14.4	12
1949.....	72.5	11
1950.....	117.1	16

On the whole investment by this group of utilities has fluctuated more substantially than that of all utilities taken as a group (see Figure 40). The application of new discoveries and techniques and the development of new transportation and communication conveniences have been responsible for a large expansion in the late twenties and since the middle of the thirties. In the early thirties, however, contraction of investment by this utility group was substantial. The drop of about four-fifths in terms of capital expenditures from 1929 to 1933 was about the same as for total private and public utilities.

Period	New Investment—Per cent Change	
	Other Private and Public Utilities	All Private and Public Utilities
1926-1929.....	+110	+ 98
1929-1933.....	- 81	- 84
1933-1937.....	+297	+158
1937-1939.....	- 5	- 15
1939-1950.....	+713	+518

The majority of enterprises in this utility group are privately owned. In 1950, for example, the private sector was responsible for more than 90 per cent of total investment by what has been described as "other private and public utilities" (see below).

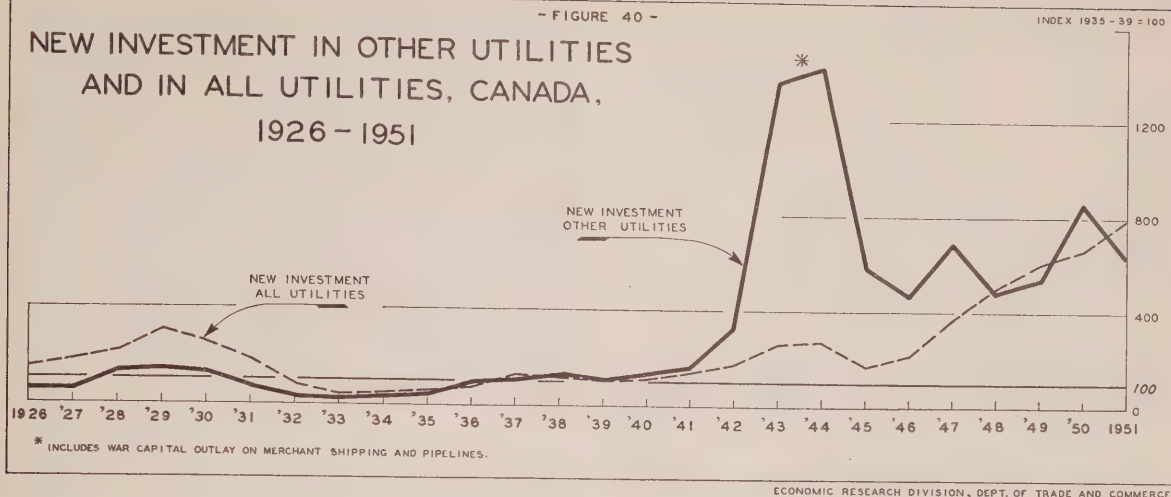
Year	New Investment—Other Private Utilities	
	\$ Mill.	Per cent of Total Investment in Other Private and Public Utilities
1929.....	16.8	83
1933.....	3.7	97
1937.....	9.6	64
1939.....	10.2	71
1949.....	64.3	89
1950.....	107.7	92

### Detailed Information on Investment in Utilities

More detailed information on the type and extent of capital, repair and maintenance expenditures made in private and public utilities for the years 1926 to 1951 will be found in Tables 40 to 65 in Part II.

- FIGURE 40 -

## NEW INVESTMENT IN OTHER UTILITIES AND IN ALL UTILITIES, CANADA, 1926-1951



## SECTION 5. INVESTMENT IN TRADE, FINANCE AND COMMERCIAL SERVICES

### Growth of Service Industries

This chapter examines the capital expenditures made by the trade, finance and commercial service industries. These industries have played a significant part in the development of the Canadian economy. They provide distribution and marketing facilities for an increasing quantity and variety of products. They supply the financial services for the growing business community and the needs of individuals. And finally they make available the personal services and conveniences required by a population whose occupations are becoming increasingly specialized and whose demands for such services and conveniences are becoming greater and more diversified as the economy grows in wealth.

The expansion of trade, finance and commercial services in Canada was accelerated around the turn of the century by the rapid development of the specialized wheat economy of the Prairies, and by the exploitation of mineral and lumber resources in British Columbia and the Canadian Shield. For a time, in fact, the trade, finance and service industries were the chief support of many urban centres in the four western provinces. It was also in the two decades preceding World War I that Canadian financial institutions developed their characteristic centralization, the western communities being serviced mainly by branches of organizations having their head offices in Ontario and Quebec. Thus these two provinces became the commercial and financial centre of the country at the same time as they came to be the manufacturing centre of Canada.<sup>1</sup> During World War I the production of both foodstuffs and manufactured goods was further stimu-

lated. The twenties in turn saw renewed development of the extractive and processing industries as well as expansion of manufacturing facilities, all of which contributed to further growth of the complementary trade, finance and commercial services sector of the economy.

In 1921 the trade, finance and commercial service group provided employment for just over half a million persons, or 17 per cent of total civilian employment. By 1939 the corresponding figures were over 800 thousand and 21 per cent. At mid-1950 these enterprises were employing over a million persons, but because of expansion in other sectors the relative importance of the group declined to 20 per cent of the civilian employed<sup>2</sup> (see below).

Year	Trade, Finance and Commercial Services—Employment	
	Number Thous.	Per cent of Total Civilian Employment
1921.....	512	17
1931.....	714	20
1939.....	847	21
1949.....	1,025	20
1950.....	1,003	20

This sector has kept pace with the rapid growth of the national income in the post-war period. In both 1939 and 1950 about one out of every four dollars of national income was earned in trade, finance and commercial services (see below).

<sup>1</sup> The latter because of the rise of the above-mentioned extractive economies in the west and some relative decline of small-scale manufacturing in the Maritimes.

<sup>2</sup> All service groups taken together employed about 1.7 million persons at mid-1950, or 34 per cent of total civilian employment. Of this, institutional, government, and domestic employment accounted for 680,000, or about 14 per cent of the civilian total. Institutional and government investment are discussed in Sections 6 to 9. Domestic service involves negligible investment outlay.



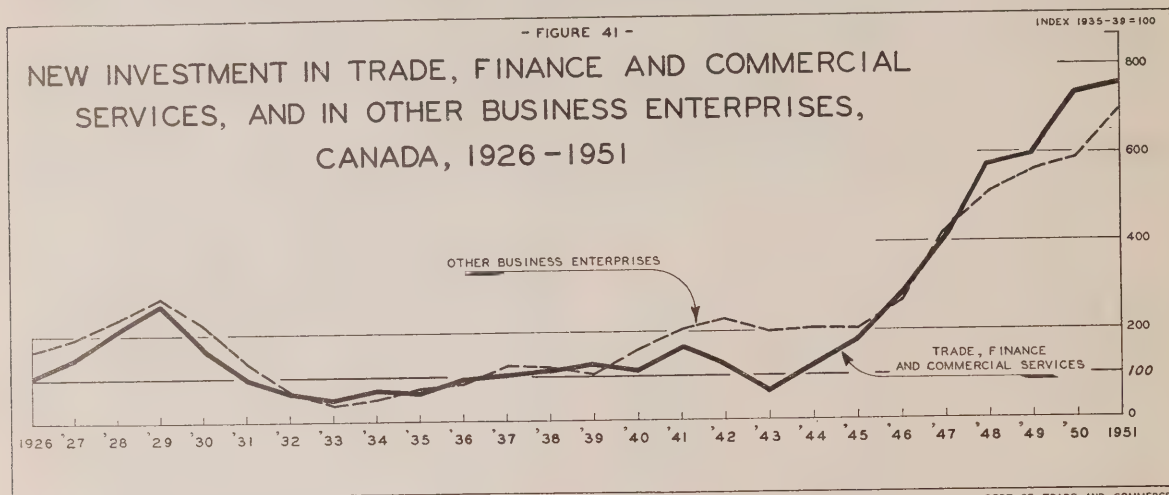
Year	Trade, Finance and Commercial Services—National Income	
	\$ Mill.	Per cent of Total National Income
1939.....	1,188	27
1949.....	3,226	24
1950.....	3,815	26

### New Investment by Type of Enterprise

As the trade, finance and service sector grew its need for new capital facilities also expanded. By 1950

the group was spending over \$360 million on new investment, or more than five times its pre-war outlay. When allowance is made for the intervening rise in the price of capital goods, this involves more than doubling the pre-war volume of new investment. Although such an increase represents considerable growth from the point of view of the industries concerned, the sector's total new investment makes up a comparatively small proportion of new investment in the economy as a whole. The \$361 million spent on new capital facilities in 1950 comprised about 9 per cent of the national total, a ratio which has changed little over the last several decades (see below). In general, investment by trade, finance and commercial service enterprises has followed a similar trend as investment by other business enterprises (see Figure 41).

- FIGURE 41 -



Of the three major groups in the business service sector, trade outweighs the other two in terms of investment. In the post-war period, for example, new capital expenditures by wholesale and retail trade establishments have varied between more than one-half and two-thirds of the group total (see below). The importance of the financial institutions, on the other

hand, lies less in their own investment outlays than in their role of financial intermediaries in facilitating capital outlays by other sectors. Among the service industries are to be found the professional services, some of which, such as law and accountancy, require relatively little capital outlay in relation to the value of the services performed.

### New Investment—Trade, Finance and Commercial Services

Year	Amount \$ Mill.	Per cent of Total Private and Public New Investment	Per cent of Total New Investment in Trade, Finance and Commercial Services		
			Trade	Finance	Commercial Services
1929.....	130.8	9	52	15	33
1939.....	61.7	8	49	12	39
1946.....	137.1	8	60	11	29
1947.....	201.5	8	59	10	31
1948.....	281.1	9	57	12	31
1949.....	293.0	8	66	11	23
1950.....	361.0	9	58	13	29

Estimates of investment in each of the three major industry sectors of this group are shown in Tables 66 to 69 of Part II. Over the 26-year period covered capital expenditures by enterprises in the trade, finance and commercial service field have coincided fairly closely with the more important movements of new investment in the economy as a whole. Thus new investment in each group reached its pre-war peak in 1929 and has shown a second major upward trend in the years that followed World War II. In 1949 new investment by the financial sector experienced a slight check while the commercial service sector underwent a short but notable decline, followed by vigorous resumption of the rise.

In the early thirties a low point occurred in 1932 in the commercial service sector and in 1933 in trade, but seemed to be postponed to 1934 and 1935 for financial institutions.

When recovery set in in the second half of the thirties, capital expenditures by the trade, finance and commercial service group as a whole rose continuously until 1939, with a decline only following the outbreak of World War II. Thus this group as a whole did not share the experience of most other industries whose investment outlay reached a high point in 1937 and declined in the 1938 recession. It is notable, however, that among the three sectors which make up this group, capital expenditures by commercial services declined in 1938 from a 1937 high, but this decline was more than offset by increased investment in wholesale and retail establishments and by financial enterprises. Similarly, a decline of new investment by the trade sector in 1939 was overshadowed by rising capital expenditures of the other two sectors in the group.<sup>1</sup>

### Investment in Trade Establishments

Trade establishments fall into two groups: wholesale and retail. The business of the latter is about four-fifths greater in terms of sales than that of the former. In 1950, for example, sales by over 10,000 wholesalers are estimated at \$5 billion, while total retail sales made through some 140,000 establishments amounted to \$9.1 billion. As a group (but not per establishment) retailers make proportionately the greater capital outlay. In 1950, they spent some \$174 million on building and equipping new stores and improving existing facilities, or about six times as much as wholesalers spent on their capital facilities.

The fact that retailers are spending more than wholesalers on new investment is explained by the character of the former business. Retail stores, whether they are of the departmental, chain store or independent store type, require extensive facilities and installations for display, customer appeal and advertising not needed in any comparable degree by the wholesale trade. After World War II particularly, the retail trade anticipated another period of keen competition and therefore spent considerable sums on building new stores, remodelling existing stores, adding new store fronts, and undertaking similar projects all designed to strengthen its competitive position in the bid for the consumer's dollar. Substantial increases in the value of their sales and improvement in their profit position encouraged retailers to make these expenditures (see below).

Year	Retail Trade—\$ Mill.		
	New Investment <sup>1</sup>	Sales	Net Profits <sup>2</sup>
1939.....	26.8	2,448	4.0
1946.....	70.5	5,506	12.1
1947.....	100.2	6,564	13.0
1948.....	131.9	7,276	15.2
1949.....	162.5	7,695	15.7
1950.....	174.4	9,088	17.4

<sup>1</sup> Excluding capital items charged to operating expenses.

<sup>2</sup> Of 21 selected companies operating in the retail and related service fields.

Similarly, capital expenditures of the wholesale trade rose as its business expanded and profits increased in the post-war period (see below).

Year	Wholesale Trade—\$ Mill.		
	New Investment <sup>1</sup>	Sales	Net Profits <sup>2</sup>
1939.....	2.4	1,779	2.7
1946.....	9.6	3,979	5.4
1947.....	14.5	4,435	5.5
1948.....	24.8	4,618	7.6
1949.....	22.5	4,750	6.8
1950.....	29.1	5,000	7.7

<sup>1</sup> Excluding capital items charged to operating expenses.

<sup>2</sup> Of 32 selected companies operating in the wholesale and related service fields.

This industrial group reflects some aspects of the process of urbanization which is discussed in more detail in Section 9 (see p. 121). The growth of chain and independent stores, for example, has accompanied the decentralization of urban communities, and the growth of outlying shopping centres. The data below, although covering only the post-war years, show that an almost three-fold increase in capital expenditures by chain and independent stores occurred from 1946 to 1950.

Year	New Investment <sup>1</sup> —\$ Mill.			
	Chain Stores	Independent Stores	Department Stores	Automotive Trade
1946.....	14.9	32.4	6.9	16.3
1947.....	21.2	46.0	9.9	23.1
1948.....	27.9	65.8	9.6	28.6
1949.....	31.7	97.1	16.0	17.7
1950.....	42.4	110.1	12.9	9.0

<sup>1</sup> Excluding capital items charged to operating expenses.

### Investment in Financial Institutions

New investment made directly by financial institutions is the smallest total among the three business service sectors. In 1949 and 1950, for example, the finance group contributed 11 and 13 per cent respectively

<sup>1</sup> See Appendix D.

of total capital expenditures by all trade, finance and commercial service establishments. The role of financial institutions in the investment field is much more important than is indicated by the value of their capital expenditures. In fact, the main task of these institutions is to facilitate investment by other sectors of the economy.

For example, the chartered banks with total asset holdings of some \$9 billion at the end of 1950 had a total of over \$3 billion outstanding in bank loans. Most of these loans had been made to the business sector for operating purposes, which in turn enabled firms to devote funds of their own and those borrowed from other sources to expanding and improving their capital facilities. In addition, the banks held substantial portfolios of securities of governments, institutions and business enterprises. Contrasted with this important financial function, the direct investment outlay by the chartered banks, involving \$20 million in 1950, appears small (see below).

Similarly, lending institutions other than the chartered banks and including life, fire and casualty insurance companies, trust and loan companies and fraternal societies held substantial assets, involving some \$5.3 billion at the end of 1950. Again, a large proportion of the assets held were mortgages on real estate, securities of business enterprises, and other loans and government securities.<sup>1</sup> Direct new investment by lending institutions, estimated at \$5 million in 1950, may appear of only minor importance in the light of their great financial resources. But against this it should be remembered that in the same year Canadian lending institutions, excluding the chartered banks, made gross loans on real estate to both business firms and home owners amounting to \$520 million, of which \$358 million were for new construction in non-farm areas, \$155 million were for the acquisition of existing real estate, and \$7 million were for the purchase and improvement of farm properties.<sup>2</sup>

Year	\$ Mill.			
	Chartered Banks		Other Lending Institutions <sup>1</sup>	
	New Investment	Asset Holdings	New Investment	Asset Holdings
1939.....	3.4	3,592	0.2	2,771
1946.....	6.1	7,430	1.0	3,886
1947.....	8.4	7,811	1.4	4,182
1948.....	11.4	8,140	2.6	4,359
1949.....	13.4	8,658	3.6	4,890
1950.....	19.6	9,015	4.9	5,330

<sup>1</sup> Covers life, fire and casualty insurance, trust and loan companies and fraternal societies.

Detailed information available on new investment by three sub-groups of financial institutions indicates that the so-called "other financial enterprises" is the most important sector (see below). This sub-group

includes real estate companies, bond, stock and other finance houses, insurance agencies, and companies engaged in personal and business credit operations. The investment expenditures by real estate companies bulk particularly large, since these companies are often formed for the sole purpose of erecting office buildings or to hold and manage the real estate of banks, department stores and other large companies.

The chartered banks are second in importance and are followed by other lending institutions. Under the stimulus of competition and the needs of the growing Canadian business community the chartered banks have undertaken a notable branch expansion program in the post-war period. This has involved not only the resumption of services in communities from which they had been withdrawn during the war, but also building in newly developing areas and in localities hitherto not serviced. By March 31, 1951 the Canadian chartered banks operated 3,706 branches, an increase in numbers of one-fifth over the last six years. As of March 31, 1945, bank branches had numbered 3,084.

Year	New Investment—\$ Mill.		
	Chartered Banks	Other Lending Institutions	Other Financial Enterprises
1946.....	6.1	1.0	7.9
1947.....	8.4	1.4	10.9
1948.....	11.4	2.6	19.3
1949.....	13.4	3.6	15.0
1950.....	19.6	4.9	21.0

### Investment in Commercial Service Establishments

Separate information for this sector is available for four sub-groups: laundries and dry cleaners, theatres, hotels and other commercial services. The last, which is the most important in terms of capital expenditures, includes recreational and amusement enterprises other than theatres, and professional services, independent restaurants, and commercial vehicle purchases not elsewhere covered in this report, e.g., the acquisition of passenger cars by taxi owners. As the data below show, this type of enterprise is responsible for some two-thirds of capital expenditures by the group as a whole, and is followed in order by hotels, theatres, and laundry and dry cleaning establishments.

Year	New Investment—\$ Mill.			
	Laundries and Dry Cleaners	Theatres	Hotels	Other Commercial Services
1946.....	1.7	5.1	10.5	21.9
1947.....	3.5	7.6	16.0	35.0
1948.....	5.0	14.7	18.6	47.8
1949.....	3.6	4.7	10.6	49.0
1950.....	4.2	5.6	18.9	75.4

<sup>1</sup> Detailed information available for life insurance companies reporting to the Federal Government Superintendent of Insurance, with admitted assets of \$4.1 billion at the end of 1950, indicates that out of this total an estimated over \$850 million represented mortgage loans outstanding.

<sup>2</sup> *Mortgage Lending in Canada, 1950*, Central Mortgage and Housing Corporation, Ottawa, 1951, p. 34.



In the post-war period investment by the commercial service group rose rapidly, increasing by more than two and one-half times between 1946 and 1950. Substantial increases in the volume of business done by this sector, as exemplified by data on the value of work performed by laundry and dry cleaning establishments and receipts by theatres, provided added incentives to expand capital facilities (see below).

### Detailed Information on Investment in Trade, Finance and Commercial Services

More detailed information on the type and extent of capital, repair and maintenance expenditures made by the trade, finance and commercial service group will be found for the years 1926 to 1951 in Tables 66 to 69 in Part II.

Year	\$ Mill.				
	Laundries and Dry Cleaners		Theatres		Total Commercial Services
	New Investment	Value of Work Performed	New Investment	Receipts <sup>1</sup>	New Investment
1939.....	0.7	22.9	2.4	34.0	23.9
1946.....	1.7	51.1	5.1	59.9	39.2
1947.....	3.5	59.0	7.6	62.3	62.1
1948.....	5.0	72.0	14.7	69.6	86.1
1949.....	3.6	81.2	4.7	78.6	67.9
1950.....	4.2	85.0	5.6	86.4	104.1

<sup>1</sup> Excluding amusement taxes.

## SECTION 6. INVESTMENT IN HOUSING AND INSTITUTIONS

The process of industrialization in Canada has released an increasing proportion of the nation's resources for use in building houses and creating educational, health, and similar types of facilities. In this way industrial development of the country has resulted in more and better housing and community services. This reflects not only an attempt to provide those conveniences which have become an integral part of the North American standard of living, but also a growing realization that adequate housing and community services improve the productive capacity of the population.

The importance that is now attached to residential and institutional investment is indicated by the fact that more than one-quarter of total investment by private individuals and corporations and by public agencies is being devoted to this purpose (see below). The relatively great importance of these two types of projects in current Canadian capital expenditures supports the view that housing, health, educational and related facilities are being increasingly acknowledged as productive investment. For Canada, which has still a rapidly growing economy and requires as much as possible of her resources to strengthen the industrial base of the country, could hardly afford the luxury of large non-productive investment without impeding economic advance. But in the stage of development which the Canadian economy has reached, housing and other service facilities must expand if further industrial-

ization is not to be retarded, mobility of the labour force is to be maintained and efficiency of the economy as a whole is to be increased.

Year	Total Private and Public Investment \$ Bill.	Per cent of Total	
		Residential Investment	Institutional Investment
1926.....	0.9	23.1	4.1
1929.....	1.5	16.3	3.6
1933.....	0.3	23.3	4.5
1937.....	0.8	21.2	2.7
1939.....	0.8	24.2	3.9
1945.....	1.3	22.3	3.6
1949.....	3.5	22.2	5.4
1950.....	3.8	22.1	5.5

### Residential Investment

Housing progress made in Canada from Confederation up to the middle of the twentieth century, the accompanying improvements in living standards of the Canadian population, and a comparison with advances made in other countries have been examined in another study.<sup>1</sup> It will therefore suffice in this report to note a

<sup>1</sup> *Residential Real Estate in Canada.*

few highlights in the role of residential investment in Canadian capital expenditures and the factors in the post-war period which have led to the building of the largest number of houses in the history of this country.

The value of new house building (work put in place), including improvements and alterations, in 1950 amounted to \$845 million. In addition, home owners and landlords spent some \$191 million on repairs and main-

tenance, so that total residential construction expenditures amounted to about \$1 billion in that year.<sup>1</sup> This is about one-third of total construction work carried out in 1950 and approximately one-half of total building construction undertaken in that year. The other half of building construction covers the erection of non-residential structures used by business enterprises, institutions and governments (see below).

Year	Residential Construction				
	New and Major Improvements <sup>1</sup> \$ Mill.	Repair and Maintenance \$ Mill.	Total \$ Mill.	Total as Per cent of	
				All Construction	All Building Construction
1939.....	185.3	56.6	241.9	31.9	50.0
1946.....	412.3	105.3	517.6	32.2	47.6
1947.....	540.0	130.8	670.8	33.3	48.4
1948.....	668.2	161.9	830.1	32.3	47.7
1949.....	776.0	176.0	952.0	33.3	49.0
1950.....	845.3	191.0	1,036.3	32.8	49.1

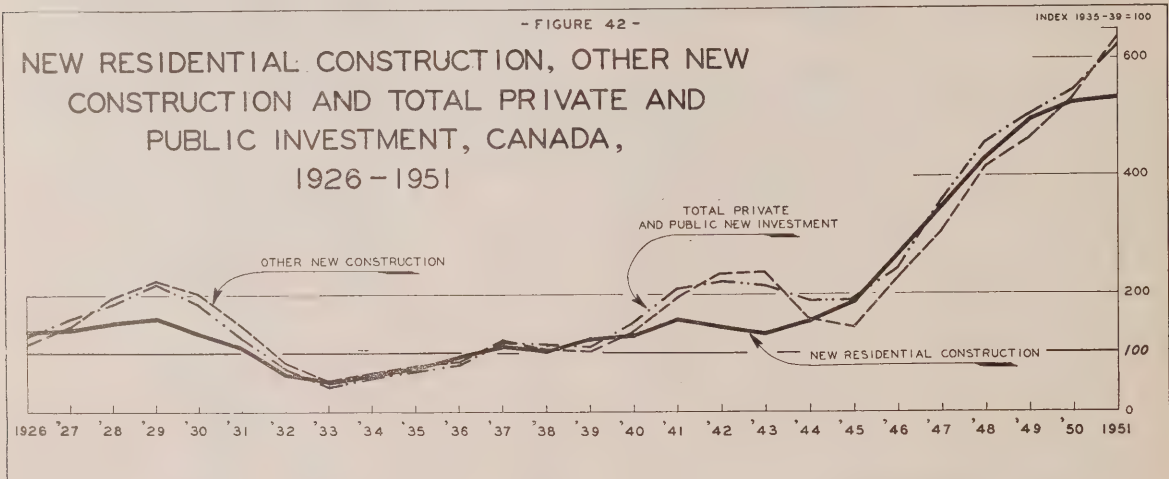
<sup>1</sup> Excludes supplementary house-building costs (see Appendix B).

While residential construction fluctuated substantially over the last 25 years, other types of construction underwent even more drastic changes during this period (see Figure 42). Between 1926 and 1929 the value of new house building, including major improvements and alterations, rose 17 per cent. In the same period other

new building construction increased by 105 per cent, mainly because of the erection of large plants and other business and government buildings. Engineering construction in this period was also stepped up by close to the same proportion, chiefly as a result of large railway and highway construction projects.

- FIGURE 42 -

### NEW RESIDENTIAL CONSTRUCTION, OTHER NEW CONSTRUCTION AND TOTAL PRIVATE AND PUBLIC INVESTMENT, CANADA, 1926-1951



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE.

When the break came, late in 1929, construction of all types was drastically reduced. Between 1929 and 1933 residential and engineering construction declined by two-thirds, while building construction other than housing dropped by four-fifths. The latter decline was particularly heavy because, as a result of business failures and retrenchment, considerable factory and commercial space was vacated. There remained then little incentive to build new plants and other commercial buildings except to meet the special requirements of

those select few business enterprises which were expanding even under the depressed economic conditions of the early thirties. Engineering construction included a large proportion of capital outlay made by governments. Some of the projects were undertaken specifically to relieve unemployment, while others begun previously were continued for the same reason (see Appendix C). Thus, the decline in this type of construction was less marked than in the case of non-residential building construction. The reason why housing, substantial

<sup>1</sup> For more detailed information on the division between private and public residential construction, both new and repair, see Table 70 in Part II.

though the decline was, did not drop as much as other types of building construction is that continuing population increase and family formation set practical limits to the number of families that could be accommodated by existing facilities, thus setting a minimum for housing more on physical than on economic grounds. Declining house building costs and increased incidence of owner building involving reduced financial commitments were additional factors.

In the recovery phase from 1933 to 1937, as business confidence returned, jobs became more plentiful and the level of income rose, all types of construction rose by about the same proportion. In the brief recession that followed in 1938 all types of construction declined. In 1939, however, residential construction turned upward, while building construction other than housing, and engineering construction receded further to reach in that year the lowest level of the late thirties.

During World War II residential construction, except for a temporary wartime housing program, was substantially reduced. The limited resources of the

construction industry were thus made available for defence and the industrial construction required either directly, for the prosecution of the war effort, or in support of war industries, e.g., hydro and railway expansion programs.

In the post-war period all types of construction expanded as rapidly as men and materials available in Canada made this possible. In the post-war struggle for materials and labour housing was not always as successful as some other competitors, particularly business. This was mainly because of the financially weaker position of the average householder as compared to the greater resources at the disposal of large industrial and commercial enterprises.<sup>1</sup> Nevertheless, as indicated below, the number of dwellings built in Canada in 1949 and 1950 broke all previous records. Between 1939 and 1950 new residential construction, including major improvements and alterations, rose by 356 per cent, while building construction other than housing rose by 469 per cent and engineering construction by 366 per cent (see below).

Period	Per cent Change			
	New Residential Construction Including Major Improvements	Other New Building Construction	New Engineering Construction	All-New Construction
1926-1929.....	+ 17	+105	+ 84	+ 64
1929-1933.....	- 69	- 82	- 69	- 74
1933-1937.....	+130	+143	+112	+126
1937-1939.....	+ 6	- 7	- 19	- 7
1939-1950.....	+356	+469	+366	+392

Translating the dollar expenditures on housing into the number of units built: dwellings completed, both new and conversions, in 1949 and 1950 numbered 92,000 in both years. This peak number is almost twice the number of houses built either just before or immediately after World War II, and is four times the number at the bottom of the depression in 1933. It represents an increase of more than one-third if the comparison is made with the pre-war peak of 1929, when 65,000 dwellings were built (see below).

Year	Dwellings Completed Thous.
1926.....	55
1929.....	65
1933.....	22
1937.....	49
1939.....	52
1945.....	48
1949.....	92 <sup>2</sup>
1950.....	92 <sup>2</sup>

The many factors influencing the course of residential investment are discussed in the housing study referred to earlier. Here only four of the more important factors may be mentioned briefly. These are:

1. Physical factors, in particular rapid population growth, family formation, concentration of people in large industrial centres, and material and manpower shortages.

2. Economic factors, such as levels of employment, income and savings, which influence the ability of families to buy or lease new housing accommodation.

3. The credit situation, which has been eased greatly over the last several decades, partly as the result of government action, partly as the result of liberalized mortgage practices by lending institutions.

4. Action by governments, which, in addition to measures for easier home financing, included direct Federal Government house building for veterans and their families and for defence personnel, Federal-provincial projects, and other steps, e.g., building material priorities for housing when materials were scarce, and tax concessions to builders of rental accommodation.

<sup>1</sup> For a discussion of the financing of business investment and house building in the post-war period, see *Investment and Inflation*, pp. 148 ff.

<sup>2</sup> Including Newfoundland.



## Physical Factors

Ever since Confederation housing standards of the Canadian population have been rising. In 1867 there were 6.2 persons per dwelling; in 1950 the ratio was down to 4.4. In three generations, then, the housing standard, if measured in terms of persons per home, has improved by about one-third.<sup>1</sup> Housing standards have also improved in qualitative terms. In addition to more living space<sup>2</sup> Canadian homes have now many conveniences not known in the last century. This improvement in living standards for the country as a whole has been accompanied by another development characteristic of industrialized society. Large numbers of individuals, either singly or in groups, having sufficient income and urge to occupy separate dwellings entered the housing market, particularly in large urban centres. These groups, which are henceforth described as "non-family households, occupying separate dwellings", became an increasingly important factor in the demand for self-contained housing space at the same time as the number of families unable to afford or unwilling to occupy separate housing accommodation also increased. The latter families are in the succeeding text described as "families without homes of their own."

Another significant physical factor in housing supply and demand is the fact that the location of existing houses is fixed, while mobility of the working force and their families increases as industrialization of the economy progresses. Thus, while in country-wide terms the housing situation appeared to improve considerably over the last 83 years, local housing shortages have continued to exist even in the most prosperous and active house building periods. In fact, as available evidence shows, the pressure for housing accommodation has been greatest when the Canadian economy prospered and subsided in economic terms when activity slumped, unemployment was high, and incomes were low. But even in the latter period the physical pressure for more housing accommodation continued to build up because population increased, new families were formed, and the addition of children increased the need for more living space. Family growth added hardships particularly to families living in rooms or sharing housing accommodation.

To illustrate: in 1929, when the Canadian economy experienced the most prosperous year of the inter-war period, some 65,000 dwellings, the largest number of houses built in any one year up to that time, were completed. In spite of the fact that net family formation and the number of non-family households occupying their own dwellings reached record proportions, it was possible to reduce the number of families without homes of their own (see below). In spite of this apparent improvement there still remained 212,000 families without homes of their own, many of whom wanted separate housing accommodation but could not afford it at prevailing costs of home ownership or rentals charged for leased accommodation. This situation prevailed in

spite of the fact that there were some 92,000 units vacant at that time. Many of these vacant houses or apartments were in a price category beyond the means of families without homes of their own, even in Canada's most prosperous pre-war year.

When the depression reached its lowest point in 1933 houses built declined to one-third the number that had been completed in 1929. Net family formation dropped to about two-fifths of what it had been at the previous peak as unemployment and low incomes discouraged many young couples from getting married. Families without homes of their own rose by close to one-third and vacant dwellings by about two-thirds. Thus in spite of the low rate of house building and net family formation physical pressure for more housing accommodation continued to build up, even when economic conditions were at their worst.

By 1939 the situation was somewhat better than it had been at the trough of the depression, but had still not recovered to the stage reached in the late twenties (see below).

Following the outbreak of World War II marriages took place in great numbers and net family formation reached a peak of 76,000 in 1942, as compared with 39,000 in 1938, the last full year before the war. Housing construction during the war was notably curtailed as materials and manpower were required for the full prosecution of military efforts (see Table 71).

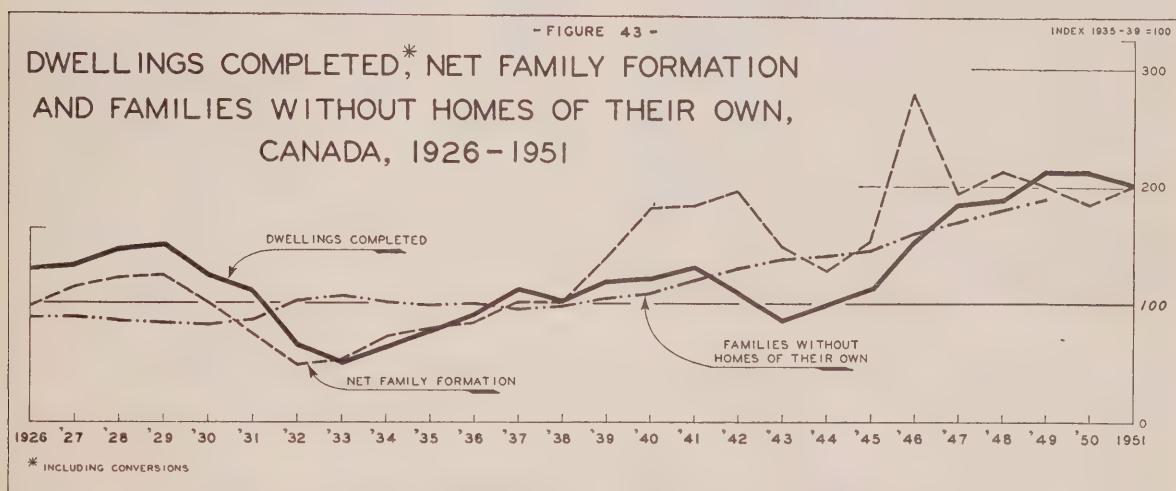
When the war ended the number of families without homes of their own had increased to 371,000, some 40 per cent above pre-war, while vacancies were down to 60,000. This number of vacant units represented for practical purposes the minimum number of homes that must be empty during changes in occupancy or when undergoing repairs, improvement, adaptation or conversion. Net family formation was considerably higher than at any time before the war, while new completions had not reached the level of 1939 (see below).

It was in the years 1946 to 1950 that Canadians built the largest number of houses in any five-year period in their history. Even this extensive program did not keep pace with increasing housing demand in the period. Prosperous economic conditions made it possible for many thousands of individuals to obtain separate housing accommodation. Further, new families were formed at a rate considerably higher than either during or before the war. Vacancies remained at a minimum. On the whole, these diverse physical factors combined to increase families without homes of their own. The latest estimate available places the number of such families at a record level of 479,000 at the end of 1949. Thus, even in Canada's most prosperous period physical factors combined to maintain demand for existing housing ahead of accommodation available (see Figure 43). This pressure in turn had the effect of inducing the large volume of housing investment that took place in this period.

<sup>1</sup> *Residential Real Estate in Canada*, p. 478.

<sup>2</sup> In terms of rooms per person the improvement would be less for urban areas than is indicated by the persons per dwelling data used above because of the tendency towards smaller homes. In rural areas, on the other hand, the tendency has been towards replacing the one-room farm homes by multi-room dwellings.

Year	Thousands			
	Net Family Formation	Non-Family Households Occupying Separate Dwellings	Families Without Homes of Their Own	Vacant Dwellings
1926.....	38	274	224	98
1929.....	48	295	212	92
1933.....	20	321	274	144
1937.....	39	347	248	85
1939.....	54	360	269	81
1945.....	59	341	371	60
1949 <sup>1</sup> .....	77	383	479	66
1950 <sup>1</sup> .....	74	— <sup>2</sup>	— <sup>2</sup>	66

<sup>1</sup> Including Newfoundland.<sup>2</sup> Not available.

As 1950 drew to a close new physical factors came into play. As Canada's program of defence preparedness was stepped up, shortages of manpower and materials made it difficult to continue building at the record levels reached during 1949 and 1950. In addition to these factors operating on the supply side physical factors on the demand side, e.g., population and family growth, occupational mobility, etc., continued almost unabated. These, then, are the physical forces which will be influencing the volume of residential investment in years to come.

### Economic Factors

It has been pointed out above in discussing physical factors that even in a prosperous pre-war year like 1929 about 212,000 families lived in shared accommodation or in rooms. Many of these families could not obtain suitable accommodation for economic reasons. Similarly, a large number of the 479,000 families without

homes of their own at the end of 1949 were looking for houses but could not afford one at prevailing prices. If this was the situation in prosperous periods like 1929 and 1949, when employment and income were high and the public had large accumulated savings, the situation was even more difficult in periods of depressed economic conditions such as prevailed during most of the thirties, when unemployment and personal indebtedness were widespread and even those who worked earned low wages or had small incomes. Incomes were low in absolute terms as well as in real terms even if allowance is made for some decreases in prices of consumer goods and services that took place in that period.

Ability to afford separate housing accommodation is one factor; willingness to spend an appropriate proportion of income on shelter is quite another. Information available indicates that Canadians have preferred in the post-war period to spend less on housing and more on other things, e.g., motor cars, household appliances, furniture, holidays, etc.<sup>1</sup>

<sup>1</sup> *Residential Real Estate in Canada*, pp. 220 ff.

Granted, then, that willingness and ability to pay for shelter both have an important bearing on the course of residential investment, what has been the actual trend of incomes and housing investment expenditures?

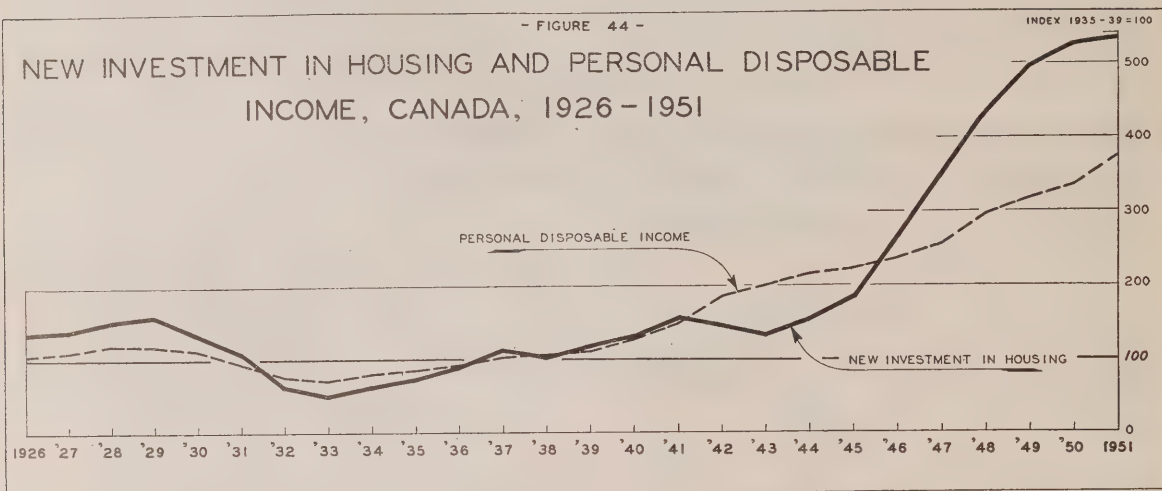
As the data below and Figure 44 indicate, expenditures on new housing fluctuate more substantially than personal disposable income, that is, income after direct taxes. The chief reason for this appears to be the fact that in periods of declining income such basic essentials as food and clothing have frequently a greater priority on the family budget than lodging. Consequently, some families will be moving to lower standard accommodation, others will be doubling up and still others may split up and live in rented rooms. Even those families who have sufficient incomes and accumulated savings

to be able to afford to build a new home or rent new accommodation will in most cases be wanting smaller and lower-priced dwellings.

Period	Per cent Change	
	Personal Disposable Income	Value of New Residential Construction
1926-1929.....	+ 14	+ 21
1929-1933.....	- 40	- 72
1933-1937.....	+ 42	+140
1937-1939.....	+ 7	+ 6
1939-1950.....	+201	+373

- FIGURE 44 -

## NEW INVESTMENT IN HOUSING AND PERSONAL DISPOSABLE INCOME, CANADA, 1926 - 1951



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### Credit Situation

Not only did post-war home purchasers have more money on hand as a result of substantial wartime savings and greater earning power while employment and income continued at high levels, but they also found it considerably easier than ever before to borrow money for new house building. This was partly the result of government financial assistance, discussed below, and partly because lending institutions found house building an attractive field of investment and made various concessions to borrowers.

Liberalization of credit terms to home builders took the form of low interest rates, reduced down payment requirements, longer periods of repayment, and widespread acceptance of a blended amortization principle. This principle involves the repayment of both capital and interest in equal monthly or other regular instalments over an agreed period, making unnecessary bulk repayment of capital or re-financing. Major aspects of credit terms as they prevailed in the late twenties are compared in the summary below with those prevailing in the late forties. The data refer to the most common

credit terms. They do not cover the whole range of terms, nor do they necessarily represent the average situation.

Item	Late Twenties	Late Forties
Interest Rate—Per cent.....	6-7	4½ <sup>1</sup>
Mortgage Loans as a Percentage		
Value of Houses Built.....	60	80
Period of Repayment—Years.....	5	20-25
Principle of Repayment.....	No Blended Amortization	Blended Amortization

<sup>1</sup> In 1951 interest rates firmed, with National Housing Act loan interest rates being raised to 5 per cent and conventional loans being made by lending institutions at rates varying between 5 and 6 per cent.

### Action by Government

Continuing measures taken by the Federal Government to encourage house building have been in operation since 1935.<sup>1</sup> They fall into three broad classes: (1) loan assistance such as the lending provisions of the

<sup>1</sup> For a summary of terms of government housing measures and the extent to which they were used, see *Residential Real Estate in Canada*, pp. 106 ff. and 490 ff.



National Housing Act, 1944, the Veterans' Land Act, 1942, and the Canadian Farm Loan Act, 1927; (2) guarantee assistance such as the Rental Insurance scheme, the Land Assembly arrangements, the Integrated Housing Plan, the Home Extension Guarantees under the National Housing Act, 1944 and farm home guarantees under the Farm Improvement Loans Act, 1944; (3) direct Government house building for veterans and their families, defence personnel and, more recently, projects of urban land development, home ownership and rental housing jointly with provincial (and municipal) governments under section 35 of the National Housing Act, 1944.

There were other special measures in operation during the post-war period such as the Emergency Shelter program and double depreciation provisions for rental housing and building material priorities for selected types of homes, but these schemes were discontinued in 1950.

As a result of the various government measures taken the contribution by government to total residential investment has increased notably over the period of government participation in housing development. In 1939, for example, publicly assisted house building accounted for 13 per cent of total new residential construction (excluding major improvements and alterations). By 1950 this proportion had risen to 56 per cent (see below).

Year	New Residential Construction \$ Mill.	Per cent		
		Direct Government	Government Financial Assistance	Without Government Assistance
1939.....	166.0	—	13	87
1946.....	390.5	14	8	78
1947.....	506.4	7	17	76
1948.....	629.2	11	17	72
1949.....	727.8	10	31	59
1950.....	784.7	7	49	44

But the main emphasis continued to be placed on Federal Government assistance to private house builders. This is indicated by the fact that in 1949 and 1950, the two peak years of residential investment, only 9 and 5 per cent respectively of total units started were for Government account.<sup>1</sup>

### Institutional Investment

Institutional investment covers the capital expenditures made by four groups of institutions: churches, universities, schools and hospitals. These are the more important types of institutions in terms of investment. There are certain other types which in the past have made only minor capital outlay, e.g., orphanages, reformatories, etc. Investment by these institutions is included with the capital expenditures of the responsible authorities, usually provincial and municipal governments.

In the past Canadians have been spending larger sums on investment for education than for health, but in recent years the situation has changed. Much greater emphasis has been placed on the building and equipping of hospitals, sanatoria and clinics, so that currently the gap between capital expenditures on education and health has narrowed. For example, new hospital investment was responsible for 15 per cent of total new institutional investment in 1926 as compared with 62 per cent for new investment in university and school facilities. In 1950 the proportion for hospitals had risen to 33 per cent, while that for educational facilities had declined to 52 per cent. The importance of churches in the institutional investment program has varied much less over this period (see below).

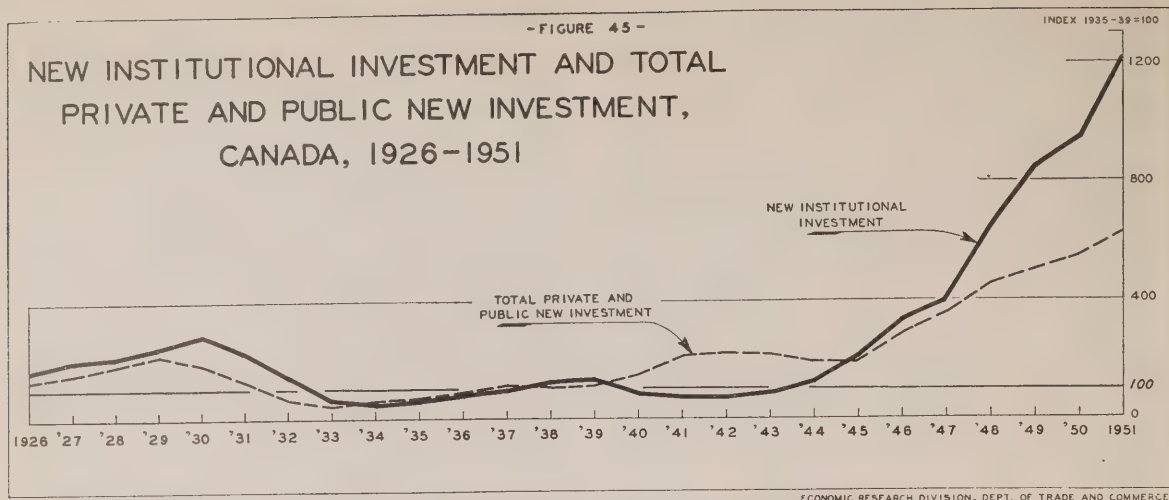
Investment by all institutions followed by about one to two years the turning points of total Canadian capital expenditures. It did not reach a peak until 1930, when total private and public investment had already turned downward. A low point was reached in 1934, when total capital expenditures had already turned upward. Again investment outlay by institutions did not reach a high point until 1939, while total investment in Canada had reached a peak in 1937, turned down in 1938 and moved upwards again in 1939 (see Figure 45).

Year	New Investment—Institutions					
	\$ Mill.	Per cent				
		Churches	Universities	Schools	Hospitals	Private as Proportion of Total
1926.....	37.5	23	9	53	15	40
1929.....	54.1	15	8	55	22	31
1933.....	14.6	15	7	51	27	32
1937.....	22.2	14	13	37	36	38
1939.....	30.0	10	16	41	33	40
1945.....	46.0	5	15	31	49	45
1949.....	189.9	18	6	38	38	46
1950.....	211.9	15	7	45	33	40

<sup>1</sup> See *Housing in Canada, First Quarter, 1951*, Central Mortgage and Housing Corporation, Ottawa, p. 39.

-FIGURE 45-

# NEW INSTITUTIONAL INVESTMENT AND TOTAL PRIVATE AND PUBLIC NEW INVESTMENT, CANADA, 1926-1951



Among the reasons for this time lag between capital expenditures by institutions and those of other sectors in the economy financial considerations are important. As suggested below, some institutions face difficulties in obtaining the necessary funds to undertake expansion of essential facilities, mainly because of their heavy dependence on voluntary contributions and government grants. In the post-war period institutional capital outlay continued to rise just as did total private and public investment. The period so far appears to have been too short for the pre-war time lag to reassert itself.

As to the three turning points of total institutional investment before the war, 1930, 1934 and 1939, new investment expenditures by schools conformed fully to this pattern, universities in two instances, 1930 and 1939, while hospitals conformed only once, at the trough in 1934. Expenditures on building and improving churches seemed to have a pattern all their own in the pre-war period and did not conform to the new investment pattern of all institutions taken as a group.

reviewed here. Investment by privately owned institutions has fluctuated more severely than corresponding outlay made by publicly owned institutions. Problems of how to finance expansion or improvement of facilities have been great for both privately and publicly owned institutions. The former had to a large extent to raise funds through voluntary subscription, aided by government subsidies and whatever revenues were obtained from operations of the institutions. Government grants are basic to the expansion of capital facilities by publicly owned institutions, and these grants have varied considerably depending on the financial strength of the sponsoring authorities. These are usually provincial and municipal governments. More recently the Federal Government has entered some of the fields in a secondary role by offering grants up to specified amounts for the expansion and improvement of health facilities, on condition that these grants are matched by provincial governments (see p. 109).<sup>1</sup>

Institutions	Pre-war Turning Points— New Investment		
	High 1930	Low 1934	High 1939
Churches.....	L	F	L
Universities.....	C	L	C
Schools.....	C	C	C
Hospitals.....	L	C	L

L—Leading; C—Conforming; F—Following.

Period	New Investment—Per cent Change		
	Privately Operated Institutions	Publicly Operated Institutions	Privately and Publicly Operated Institutions
1926-1930.....	+ 51	+ 82	+ 70
1930-1934.....	- 79	- 81	- 80
1934-1939.....	+148	+132	+138
1939-1950.....	+609	+604	+606

## Investment in Churches

The post-war period saw the largest expansion of church facilities in Canadian history. During 1947 to 1950 a total of \$100 million was spent on the erection of new churches and supplementary buildings and the

<sup>1</sup> For a summary of various methods of Federal assistance to expand health facilities in Canada, see *Health Reference Book, 1946*, Dominion Bureau of Statistics, Ottawa, 1947, and reference book on *National Health Program*, prepared for the Federal-Provincial Conference, December, 1950.

improvement of existing churches, together with much needed equipment. This works out to an annual average of \$25 million and compares with an annual average of \$9 million, during 1926 to 1929 and \$3 million for the period 1936 to 1939. The largest annual capital outlay was made in 1949, involving \$33 million, with a moderate decline indicated for 1950. Pre-war turning points of investment by churches reached a peak notably earlier than other institutional sectors. A high was recorded in 1927, two years earlier than the peak for private and public investment. The low in 1935 was two years later than the trough of total private and public investment. Apparently church donations and revenues, which are so important in financing the building program, began to decline before the business turn came late in 1929 and took longer to recover.<sup>1</sup>

### Investment in Universities

In the post-war period enrolment in Canadian universities was about double what it had been before the war. There were several reasons for this: (a) many returning veterans decided to take up university study; (b) Federal Government financial assistance facilitated university training for these men, and (c) favourable economic conditions and a growing population made it possible for many who were not veterans to attend universities.

Universities were not too well equipped in terms of physical facilities to cope with this greatly enlarged enrolment. Shortages of lecture rooms and laboratory space were so great that some universities had to rent temporary quarters, sometimes some distance away. The University of Toronto, for example, made temporary arrangements in Ajax, about 24 miles away, and McGill University set up special teaching facilities in Dawson College, St. Johns, Quebec, about 23 miles from Montreal.

Universities had undertaken little expansion of capital facilities during the thirties, mainly because of low revenues, declining private donations and small government subsidies. The financial situation of the universities improved somewhat during the war but manpower and material shortages made it impossible to erect the buildings and purchase the equipment required to enable them to cope with the increased student inflow expected after the war.

It was only in the post-war period (1947 to 1950) that universities were able to spend on an average some \$13 million per year on the expansion and improvement of structures and equipment. This compares with an annual average of \$3.4 million in 1926 to 1929 and \$3 million in 1936 to 1939. On first sight this post-war increase over past capital outlay is substantial, but in relation to the greatly increased student population universities are not doing much better in volume terms

than they did before the war. The increase of investment in current dollar terms is about four-fold from the 1936-1939 average to the 1947-1950 average. However, capital costs have about doubled in that period and so has the number of students enrolled. In volume terms per student, therefore, capital expenditures in the post-war period are of about the same order as those made in the late thirties, when economic conditions were far less favourable (see below).

Year	New Investment by Universities \$ Mill.	University Students Thous.	New Investment Per University Student \$
1939.....	4.8	37	130
1946.....	12.4	65	191
1947.....	13.5	80	169
1948.....	12.3	83	148
1949.....	11.9	81	147
1950.....	15.2	74	205

The main explanation offered for the fact that real investment in university expansion is not in line with increased demand for university facilities is the continuing financial difficulties in which a number of institutions of higher learning find themselves. Increases in revenues and donations in the post-war period have not been sufficient to cover rising operating costs.<sup>2</sup>

### Investment in Schools

The rapid rate of urbanization (see p. 121), the growth of suburban communities, and improvement of educational facilities in rural communities were all factors which contributed to making the post-war school investment expenditures the largest on record. The annual average outlay in the years 1926 to 1929 amounted to \$26 million, declining to \$10 million during 1936 to 1939 and rising to \$63 million in the post-war years of 1947 to 1950. Capital outlay per pupil in attendance rose notably (see below).

Post-war investment in school facilities has resulted in the construction of many new buildings and improvement and expansion of existing ones. School projects covered all types, from kindergartens to high schools and technical and commercial schools. The bulk of new investment was made for the expansion of elementary day-school facilities. Improvement of existing facilities has been most notable in rural schools, with large expenditures being made for electrification, plumbing and playground facilities. The acquisition of radios, record players and moving picture projectors as well as ordinary school equipment has also been a major source of capital outlay.

<sup>1</sup> Data available for the United Church show revenues at a peak in 1925, then declining in 1926 and 1927 and recovering somewhat in 1928 and 1929. In the thirties the lowest point in revenues was reached in 1935.

<sup>2</sup> Report of the Royal Commission on National Development in the Arts, Sciences and Letters, Ottawa, 1951, p. 141.



Year	New Investment by Schools \$ Mill.	Pupils <sup>1</sup> Thous.	New Investment Per Pupil \$
1939.....	12.5	2,132	5.9
1946.....	27.4	2,041	13.4
1947.....	31.3	2,067	15.1
1948.....	53.4	2,151	24.8
1949.....	73.2	2,250	32.5
1950.....	94.5	2,370	39.9

<sup>1</sup> Enrolment in provincially controlled ordinary and technical day-schools.

### Investment in Hospitals

Privately owned and endowed hospitals have been responsible for the larger part of post-war expansion of health facilities in Canada. Before the war the reverse was true, with publicly owned institutions the more important factor in the hospital investment field (see below). Capital outlay in the post-war period has been particularly high if compared with corresponding expenditures made in both the twenties and the thirties. There were several reasons for this. Hospital construction to take care of the needs of returned veterans involved large outlays on the part of the Federal Government. Further, grants by provincial governments together with financial assistance from the Federal Government made for greater public contributions to hospital construction in the last several years. Finally, prosperous economic conditions made it possible for hospitals to obtain sizeable subscriptions from private individuals and corporations. As a result capital expenditures on hospital construction and equipment in 1949

and 1950 were of the order of \$70 million as compared with less than \$10 million one decade earlier.

In the post-war period, for every four to eight dollars spent on hospital construction one dollar was spent on hospital equipment, covering a variety of items such as hospital beds, furniture, installations in operating rooms and radiological equipment.

Although post-war capital outlays on expanding hospital facilities were large, the following figures indicate that the increase in terms of bed capacity provided has on the whole been comparatively moderate.

Year	New Investment		Hospital Bed Capacity Thous.
	\$ Mill.	Private Hospitals as Per cent of All Hospitals	
1939.....	9.8	43	114.6
1946.....	28.3	52	137.9
1947.....	33.1	56	137.9
1948.....	55.6	72	140.7
1949.....	71.4	58	144.2
1950.....	69.7	53	148.6

### Detailed Information on Investment in Housing and Institutions

More detailed information on the type and extent of capital, repair and maintenance expenditures made by home owners, private landlords and governments on housing and by privately and publicly owned institutions for the years 1926 to 1951 will be found in Tables 70 to 81 in Part II.

## SECTION 7. INVESTMENT BY THE FEDERAL GOVERNMENT

### Federal Government Influence on Investment

In accordance with the principle of divided jurisdiction embodied in the constitution and developed since Confederation, the Federal Government has been directly involved in the public investment field through projects of national and international character and certain undertakings specifically made Federal responsibility under the British North America Act.<sup>1</sup> Projects of national importance include undertakings relating to defence, civil aviation and resources development, the last particularly as it concerns two or more provinces. Examples are to be found in the projects under the Prairie Farm Rehabilitation Act of 1935,<sup>2</sup> which involve the rehabilitation and development of soil, water and other natural resources in Manitoba, Saskatchewan and Alberta. Other resources development projects directly administered by the Federal Government and which are outside provincial jurisdiction include the

development and settlement of Canada's northern areas in the Yukon and Northwest Territories, and such responsibilities as national parks. Investment projects of an international nature are usually undertakings that affect both Canada and the United States, e.g., international bridges across the St. Lawrence River, navigation facilities on the Great Lakes, power projects at the Lake of the Woods, preservation and development works at Niagara Falls, and the fishway project on the Fraser River.

Public investment projects undertaken directly by the Federal Government, however, are only one aspect of its contribution to investment. There are two other ways in which the Federal Government influences the course and level of capital expenditures in Canada. One is by aiding provincial and municipal<sup>3</sup> governments in expanding their investment programs, by means of various financial arrangements such as grants-in-aid

<sup>1</sup> British North America Act, 1867, 30-31 Victoria, Chap. 3, Sec. 92 (10). Examples are shipping, railways, canals and telegraphs.

<sup>2</sup> 25-26 George V, Chap. 23.

<sup>3</sup> Federal Government financial aid to municipal governments is usually given through the provincial governments concerned.

and loans. The other way is by encouraging private investment through fiscal and monetary measures such as tax concessions, tariff protection for infant industries, loans, guarantees, subsidies and low interest rates.

### Before World War I

Up to World War I direct investment activity and encouragement to private investment were the two principal means by which the Federal Government endeavoured to provide the necessary capital facilities to assist widespread settlement of the country, speed up industrialization of the Canadian economy and encourage greater utilization of domestic natural resources.

In the direct field the most important projects of a developmental nature were concerned with transportation. Railway tracks were laid linking the Prairies with the Atlantic Ocean and supplementary feeder lines were constructed. Harbour facilities were expanded, particularly in Eastern Canada, to encourage overseas trade. Canals were built, principally in the Great Lakes-St. Lawrence region, to help provide low cost inland transportation. The guiding principle behind these Federal investment projects, developed before Confederation<sup>1</sup> and continued thereafter for almost half a century, was to contribute by direct means to raising the efficiency of the national economy, with resulting benefits to both producers and consumers.

Assistance to private ventures took the form of financial aid in terms of loans, guarantees, tax concessions and land grants to those engaged in the building of railway facilities and the colonization of new land, particularly in the West. As agriculture in the Prairie Provinces developed in turn to become a major factor in Canadian export trade, private interests built substantial storage and related facilities, particularly grain elevators, and the Federal Government aided the trans-shipment of grains by adapting railway and harbour facilities to the needs of mass transportation of bulk commodities. Thus in the first half-century after Confederation, the Canadian Government as part of its "national development" program<sup>2</sup> leaned towards greater direct contribution in the public investment field, and supplemented and encouraged private investment where appropriate.

### After World War I

In the years following 1914 the Federal Government changed its attitude towards investment. It still placed a great deal of reliance on a direct contribution in periods

of emergency like World Wars I and II, but withdrew somewhat from direct investment undertakings in the inter-war years and the post-World War II period.<sup>3</sup> In these non-war years greater emphasis was placed on encouragement and assistance to investment projects undertaken by other governments and by private individuals and enterprises. During the two world wars the Federal Government curtailed investment projects of a civilian nature and made large expenditures on military and related installations required for training and defence purposes, and on industrial facilities needed to speed up and make possible an extensive munitions and military equipment production program. Endeavours of this type as they relate to World War II are summarized in Appendix D (see also Section 3).

Among the reasons for the Federal Government's withdrawal from the direct investment field after World War I were: the near completion of two of the major tasks undertaken since Confederation, i.e., the creation of a national rail and water transportation system and the opening up and settlement of the West; the growing willingness and ability of provincial and municipal governments to create within their jurisdiction the facilities required to keep up with the rapidly growing industrialization and urbanization of the country (see Sections 8 and 9); financial considerations, particularly the heavy debts incurred in World Wars I and II, and the need to meet railway guarantees and deficits, as well as a trend towards greater social security commitments on the part of the Federal Government.

Offsetting this gradual and partial withdrawal from direct investment activity, the Federal Government increased its financial assistance to investment projects undertaken by other governments and by private entrepreneurs. Examples of Federal Government assistance to provincial governments include housing loans under the War Measures Act, 1918,<sup>4</sup> made between 1919 and 1924 for projects undertaken by municipalities,<sup>5</sup> grants-in-aid for provincial road building programs carried out between 1920 and 1928 under the Canada Highways Act of 1919,<sup>6</sup> contributions to a variety of provincial and municipal relief works projects undertaken in the thirties (see Appendix C), loans for self-liquidating municipal projects under the Municipal Improvements Assistance Act, 1938,<sup>7</sup> and financial participation in a number of provincial emergency and resources development projects in the post-war period, discussed in greater detail in Section 8 (see p. 109). Federal Government encouragement to private investment in the inter-war period included long-term loans to farmers under the Canadian

<sup>1</sup> For example, in 1862 the Minister of Finance of the Province of Canada observed, "Lighthouses have been built and steamships subsidized to reduce the charges for freight and insurance, the St. Lawrence has been deepened, and the canals constructed to reduce the cost of inland navigation to a minimum. Railways have been assisted to give speed, safety and permanency to trade interrupted by the severity of winter. All these improvements have been undertaken with the twofold object of diminishing the cost to the consumer of what he imports, and of increasing the net result of the labour of the country when finally realized in Great Britain." (Report of the Minister of Finance on the Reciprocity Treaty with the United States, Ottawa, March 17, 1862, Sessional Paper No. 23, p. 11).

<sup>2</sup> For a summary of Federal investment undertakings as part of a national transportation policy, see *Report of the Royal Commission on Transportation*, Ottawa, 1951, pp. 274 ff.

<sup>3</sup> However, after mid-1950, when as a result of aggression in Korea there was need to increase the production of armaments in Canada, the Federal Government re-entered the field of direct investment, e.g., through capital grants for defence plant construction, and also assisted private industrial expansion, e.g., through an accelerated depreciation scheme under Order in Council P.C. 816 of February 13, 1951.

<sup>4</sup> Order in Council P.C. 2997, Dec. 3, 1918.

<sup>5</sup> *Residential Real Estate in Canada*, p. 480.

<sup>6</sup> 9-10 George V, Chap. 54.

<sup>7</sup> 2 George VI, Chap. 33.



Farm Loan Act, 1927<sup>1</sup> to home builders under the Dominion Housing Act, 1935<sup>2</sup> and the National Housing Act, 1938,<sup>3</sup> guarantees for home improvement loans under the Home Improvement Loans Guarantee Act, 1937,<sup>4</sup> and various tax concessions designed to encourage industrial expansion and greater use of Canadian resources. An example of the latter is a system of "capital expenditure allowances" introduced in 1939 and designed to place Canadian industry "on the most modern and up-to-date basis, enabling them to cut costs, to compete more efficiently in both the domestic and the world markets, and thereby to be in a position to maintain prosperous employment for the longer run future."<sup>5</sup>

### After World War II

In the post-World War II period the Federal Government, in spite of a large volume of deferred public investment projects,<sup>6</sup> on the whole kept its own capital outlay to a minimum. This policy was considered advisable, particularly in the period from 1946 to 1948, in order that as large a share as possible of the limited supply of materials and skilled labour might go to private investment projects involving the reconversion and modernization of industry, the expansion of utilities, the development of resources and the building of houses. A notable increase in the Federal investment program took place in 1949 and 1950 (see Table 82), but the turn to greater preparedness efforts after the middle of 1950 resulted in further curtailment of Federal investment projects of a non-defence nature.<sup>7</sup>

In the post-war period, and particularly up to mid-1950, considerable encouragement to the expansion of private investment was provided by various Federal

Government measures. To mention only a few of the more important programs<sup>8</sup>: loans for the establishment of new industries which could not obtain credits from commercial sources, provided under the Industrial Development Bank Act of 1944,<sup>9</sup> loans to home owners and builders of rental housing under the National Housing Act, 1944,<sup>10</sup> guarantees to banks for short and intermediate-term loans to farmers under the Farm Improvement Loans Act, 1944,<sup>11</sup> sale or lease to private industry of Crown-owned plants erected during World War II for munitions and related production,<sup>12</sup> and a variety of tax concessions, such as special depreciation provisions<sup>13</sup> and a number of tax exemptions designed to encourage resources development, research, expansion of capital facilities and the establishment of small business.<sup>14</sup>

As defence requirements for steel and other basic materials increased late in 1950, the tendency has been to discourage certain types of private investment projects. Orders under the Essential Materials (Defence) Act of 1950,<sup>15</sup> for example, prohibited the use of steel in commercial, amusement and similar types of unessential construction. Other measures include the tightening of mortgage credit for housing<sup>16</sup> and of loans for farm improvement,<sup>17</sup> and the raising of interest rates.<sup>18</sup> As another move the chartered banks in consultation with the Bank of Canada adopted a policy of much tighter lending practices in order to avoid increases in the aggregate volume of bank loans and holdings of non-Government securities.<sup>19</sup> The 1951 Budget provided for increased corporation taxes to a level of about 50 per cent for corporations earning more than \$10,000 per annum.<sup>20</sup> Finally, a deferred capital cost allowance scheme was introduced which provides for the deferment

<sup>1</sup> R.S.C. 1927, Chap. 66.

<sup>2</sup> 25-26 George V, Chap. 58.

<sup>3</sup> 2 George VI, Chap. 49.

<sup>4</sup> 1 George VI, Chap. 11.

<sup>5</sup> Budget address by the Minister of Finance, *House of Commons Debates*, April 25, 1939, p. 3151.

<sup>6</sup> According to the Annual Report of the Department of Reconstruction and Supply for the fiscal year ending March 31, 1949, some \$3 billion worth of Federal public projects were awaiting implementation. Projects under way, in the estimates or fully planned, comprised \$722 million; projects in various stages of planning, \$966 million; and projects under preliminary examination, \$1,304 million. Of the total of \$3 billion, projects under sole jurisdiction of the Federal Government involved \$1.4 billion, and joint projects, \$1.6 billion (*Annual Report*, p. 6).

<sup>7</sup> "We have paid particular regard to our expenditures on construction, because it is in this field where we anticipate the greatest competition between the defence program and other public and private expenditures. Examination of the estimates for the department of public works, transport, agriculture, and resources and development—our major non-defence spending departments in this field—reveals very large reductions in their construction programs, notwithstanding urgent needs for expenditure of this kind, following twenty years during which works have been postponed, first for lack of funds, then for war, and finally, in recent years because of shortages of materials and labour." Budget address by the Minister of Finance, *House of Commons Debates*, April 10, 1951, p. 1810.

<sup>8</sup> For a detailed discussion of the Federal Government's attitude towards both private and public investment, see *Investment and Inflation*, pp. 161-193.

<sup>9</sup> 8 George VI, Chap. 44.

<sup>10</sup> 8 George VI, Chap. 46.

<sup>11</sup> 8 George VI, Chap. 41.

<sup>12</sup> *Disposal and Peacetime Use of Crown Plant Buildings*, Department of Reconstruction and Supply, Ottawa, 1948.

<sup>13</sup> *Encouragement to Industrial Expansion in Canada*.

<sup>14</sup> Examples of such measures taken are: (a) tax concessions to mining and oil companies to encourage resources development; (b) allowance for capital outlay and additional current expenditures for scientific research as deduction for tax purposes; (c) adjustments permitted for business losses; (d) deferred maintenance allowances; (e) fixed taxation rate for new businesses for the first fiscal period and adjustment for capital employed (Budget address by the Minister of Finance, *House of Commons Debates*, June 26, 1944, pp. 4181-4183); (f) removal of sales tax on machinery and apparatus used to produce or manufacture goods; (g) increase in minimum standard profits allowed for small firms, whether incorporated or not (Budget address by the Minister of Finance, *House of Commons Debates*, October 12, 1945, pp. 1003-1005); and (h) a reduction of the corporate profit tax from 30 to 10 per cent on profits up to \$10,000 and an increase to 33 per cent on profits in excess of \$10,000 (Budget address by the Minister of Finance, *House of Commons Debates*, March 22, 1949, p. 1798).

<sup>15</sup> 14 George VI, Chap. 6. In 1951 this Act was superseded by the Defence Production Act (15 George VI, Chap. 4) and controls instituted under the earlier statute were continued and expanded by virtue of the new Act.

<sup>16</sup> Statement by the Minister of Resources and Development, *House of Commons Debates*, February 5, 1951, p. 69.

<sup>17</sup> Statement by the Parliamentary Assistant to the Minister of Finance, *House of Commons Debates*, February 27, 1951, p. 743, and Order in Council P.C. 150, January 10, 1951.

<sup>18</sup> Statement by the Minister of Resources and Development, *House of Commons Debates*, May 11, 1951, p. 2933.

<sup>19</sup> Release by the Bank of Canada, February 22, 1951, and statement by the Minister of Finance, *House of Commons Debates*, March 14, 1951, p. 1234.

<sup>20</sup> Budget address by the Minister of Finance, *House of Commons Debates*, April 10, 1951, p. 1810.



of depreciation with respect to all properties acquired after April 10, 1951, except in specified cases, for a period of three years following the taxation year in which the property was acquired.<sup>1</sup>

Accompanying these endeavours to cut down unessential investment were measures to encourage the expansion of those types of investment that contribute directly to raising military strength or indirectly to increasing readiness for defence through expansion of strategic industries and services. A large defence construction program was undertaken by a newly created Crown company, Defence Construction Limited,<sup>2</sup> and private industry was encouraged to expand plant facilities contributing directly to defence production or of a defence-supporting type. Measures of encouragement include a doubling of depreciation rates,<sup>3</sup> direct capital assistance grants to expand production,<sup>4</sup> and a priority system to enable strategic industries to obtain scarce materials, equipment and tools.<sup>5</sup>

### Federal Capital Expenditures

A distinction has been made above between direct Federal participation in public investment, and financial and other aids provided by the Canadian Government to encourage provincial and municipal government and private investment. Federal Government investment can also be classified according to administrative considerations and the purpose of the projects. Such a division takes into account the fact that some Federal investment projects are undertaken (a) by Government-owned Crown companies, boards and other agencies with varying degrees of independence, e.g., the Canadian National Railways, the National Harbours Board, the Canadian Broadcasting Corporation and the Bank of Canada, (b) by Government-operated institutions and for Government-financed housing projects, e.g.: veterans' hospitals and undertakings by Central Mortgage and Housing Corporation, and (c) by Government

departments. The advantage of such a classification—and this also applies to the fields of provincial and municipal government investment—is that it makes it possible to arrive at various homogeneous aggregates of capital expenditures. One can obtain, for example, a combination of Federal Government institutional investment and all other institutional investment, or of Federal Government housing expenditures and other types of residential investment. The data in Table 82 in Part II provide information separately for these three types of Federal investment undertakings on the basis of both capital and repair and maintenance expenditures.

Federal Government capital expenditures in 1950 are estimated at \$313 million. Of this, 55 per cent was spent by Government departments, 26 per cent by Government-owned enterprises and 19 per cent by Government-operated institutions and on housing. Departmental spending was more important in 1950 than it had been before the war (see Figure 46). In 1930, about 50 per cent of total Federal Government capital outlay was made by Government departments and the remainder by Government-owned enterprises. At that time hardly any direct expenditures were made on institutional and housing projects by the Federal Government. Such small outlay as was made, for example, on housing for Government employees is included in the figures of investment by Government departments. In 1937, the high point of Federal capital outlay in the thirties, Government departments were responsible for only 44 per cent and Government-owned enterprises for the remaining 56 per cent. The reason for the large contributions made by Government-owned enterprises to Federal investment in this year is to be found in the substantial expenditures made by the Canadian National Railways and the coming into operation of such new Government agencies as the Canadian Broadcasting Corporation, Trans-Canada Air Lines, the Bank of Canada and the National Harbours Board<sup>6</sup> (see below).

Federal Agency	New Investment					
	1930		1937		1950	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Enterprises.....	77.5	50	40.5	56	82.0	26
Institutions and Housing.....	—	—	—	—	58.2	19
Departments.....	78.8	50	31.2	44	172.8	55
Total.....	156.3	100	71.7	100	313.0	100

<sup>1</sup> Orders in Council P.C. 1778, April 10, 1951 and P.C. 3237, June 26, 1951; Budget address by the Minister of Finance, *House of Commons Debates*, April 10, 1951, pp. 1808-09; and statements by the Minister of Trade and Commerce, *House of Commons Debates*, April 12, 1951, pp. 1940-41 and June 28, 1951, pp. 4815-18.

<sup>2</sup> Statement by the Minister of Trade and Commerce, *House of Commons Debates*, February 8, 1951, p. 180.

<sup>3</sup> Order in Council P.C. 816, February 13, 1951, and Order in Council P.C. 1484, March 22, 1951.

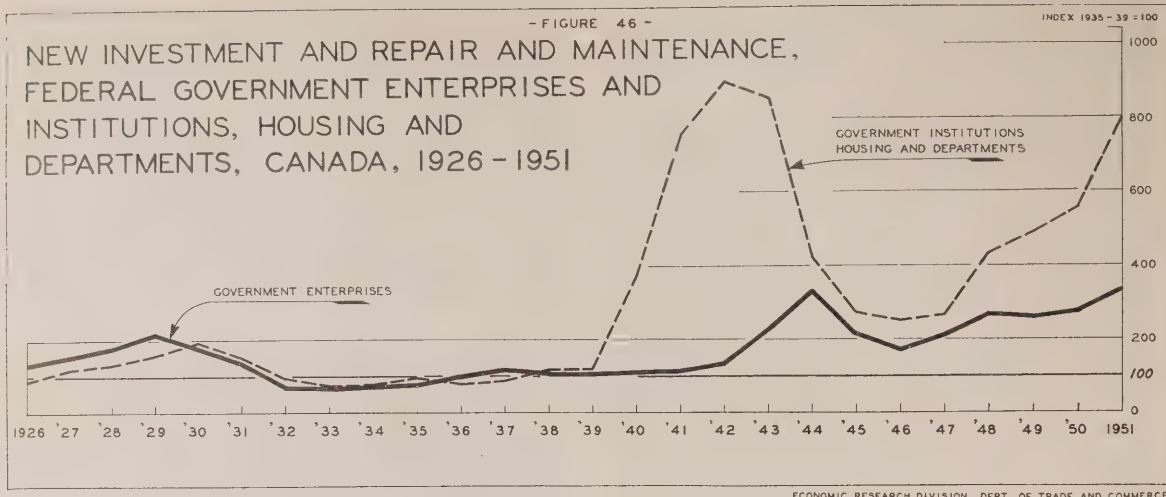
<sup>4</sup> \$100 million for this and other defence expansion purposes included in Votes 77 and 681, Department of Defence Production, Estimates, 1951-52.

<sup>5</sup> Order in Council P.C. 2399, May 16, 1951.

<sup>6</sup> For an appraisal of the relative importance of Federal, provincial and municipal investment by government departments and all agencies for selected years, see pp. 18 ff.

- FIGURE 46 -

# NEW INVESTMENT AND REPAIR AND MAINTENANCE, FEDERAL GOVERNMENT ENTERPRISES AND INSTITUTIONS, HOUSING AND DEPARTMENTS, CANADA, 1926-1951



On the whole, Federal Government investment expenditures in the non-war period reviewed in this report have risen and fallen as economic conditions changed. But since some of the larger capital projects required more than one year for completion, the components of Federal Government investment have not always conformed to the pattern of total private and public investment. For example, private investment reached a peak in 1929 and turned downward in 1930. As to Federal Government investment, capital outlay by Government-owned enterprises followed the trend of private investment, that is, reaching a peak in 1929 and declining thereafter. However, investment by Government departments reached a peak one year later, in 1930. In 1937 investment by Government-owned enterprises again followed the private investment pattern, while capital expenditures by Government departments continued upward after 1937 and did not experience the slump in 1938 indicated for the private investment field (see Table 82).

Capital outlay by Government-owned enterprises fluctuated more substantially than corresponding expenditures by Government departments. For example,

investment by the former group rose by 180 per cent and in the latter group by 75 per cent between 1926 and 1929. In the ensuing period of depression, Government-owned enterprises cut their investment program to almost negligible proportions, recording a decline of 92 per cent between 1929 and 1933. Investment by Government departments recorded a substantial but less severe drop of 55 per cent (see below). Among the reasons for these different variations is the fact that Government-owned corporations are frequently guided in their investment decisions by considerations similar to those which influence the business community in formulating its capital expansion plans. On the other hand, Government departments which administer specific Government programs are guided by the terms of reference of these programs. In the thirties, for example, one important aspect of Federal Government investment programming was the employment and income effects which such projects have on the economy as a whole (see Appendix C). In considering the substantial increase of investment outlay by Government departments from 1939 to 1950 shown below, it should be remembered that the 1950 figure includes outlays for defence construction projects, which became more important in that year.

Federal Agency	New Investment—Per cent Change				
	1926-1929	1929-1933	1933-1938	1938-1939	1939-1950
Enterprises.....	+180	- 92	+257	- 8	+181
Departments <sup>1</sup> .....	+ 75	- 55	+ 61	+ 6	+287
Total.....	+131	- 79	+111	0	+324

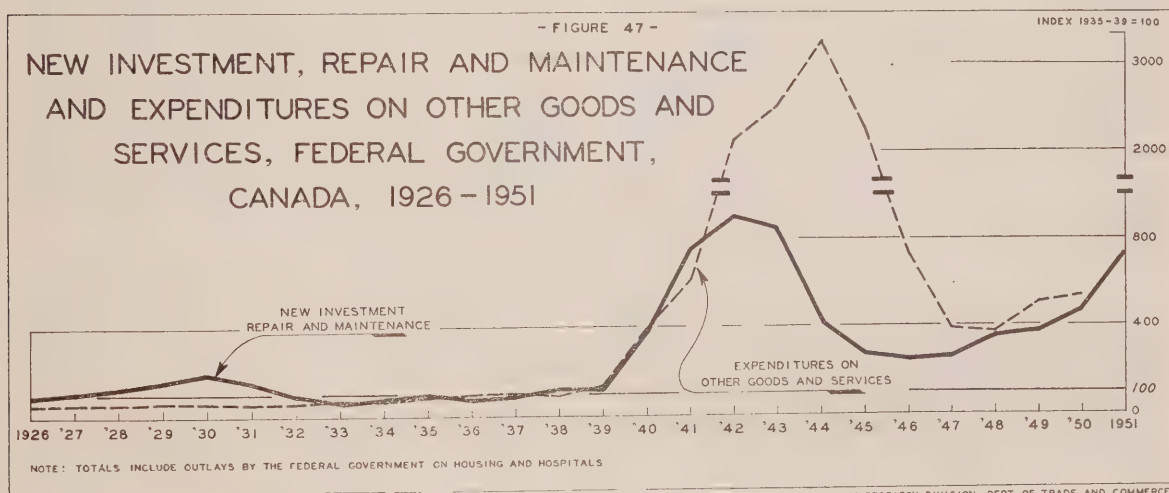
<sup>1</sup> Including outlays by the Federal Government on institutions and housing.

## Investment and Total Federal Expenditures

The decreasing significance of direct capital expenditures as a factor in total Federal Government outlay has been emphasized earlier. This observation is borne out by the following data. New investment by the Federal Government through departments in 1950 was more than five times as large in value terms as it had been in 1926. In relative importance capital outlay declined from 25 per cent to 19 per cent of total Federal expenditures on goods and services, and from 12 to 7 per cent of total Federal outlay on both capital and cur-

rent account, that is, including transfer payments to other sectors of the economy. This same tendency is shown in the new investment and repair and maintenance totals which made up 34 and 16 per cent respectively of the 1926 expenditures for all goods and services, and on capital and current account, but which accounted for only 25 and 10 per cent of the corresponding totals for 1950. Even the substantially increased Federal investment expenditures, both new and repair and maintenance, are estimated to represent only 25 per cent of the total outlay on all goods and services in 1950, still 9 per cent below the 1926 figure (see Figure 47).

Year	New Investment by Government Departments			New Investment and Repair and Maintenance by Government Departments		
	Amount \$ Mill.	Per cent of Total Federal Expenditure on Goods and Services	Per cent of Total Federal Expenditure on Capital and Current Account	Amount \$ Mill.	Per cent of Total Federal Expenditure on Goods and Services	Per cent of Total Federal Expenditure on Capital and Current Account
1926.....	33.5	25	12	45.5	34	16
1930.....	78.8	42	22	98.7	53	28
1937.....	31.2	19	7	45.4	28	10
1948.....	135.7	20	8	184.7	27	10
1950.....	188.0	19	7	242.5	25	10



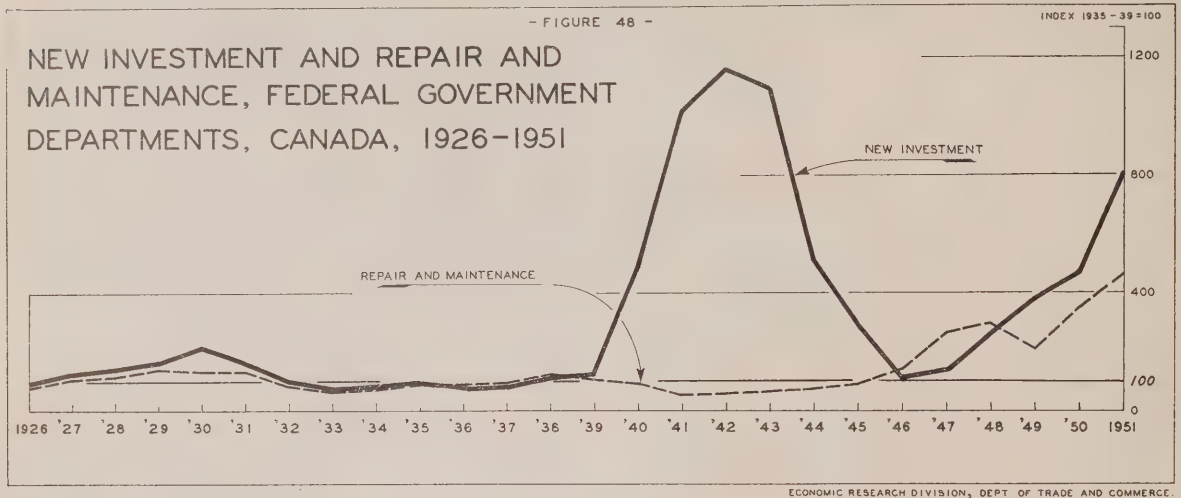
## New Investment and Repair and Maintenance Expenditures

Federal repair and maintenance expenditures have followed the trends established by new investment outlay fairly closely in the period under review. Both increased by approximately three-quarters in the 1926-1929 period, both declined by slightly more than one-half in the 1929-1933 era, new investment rose by 61 per

cent and repair and maintenance expenditures by 97 per cent in the 1933-1938 interim. Between 1939 and 1950 new investment increased by almost 300 per cent while repair and maintenance rose by over 200 per cent in the same period. Only in the short 1938-1939 interval did they move in opposite directions, with new investment increasing by 6 per cent while repair and maintenance outlay shrank by 12 per cent (see Figure 48).



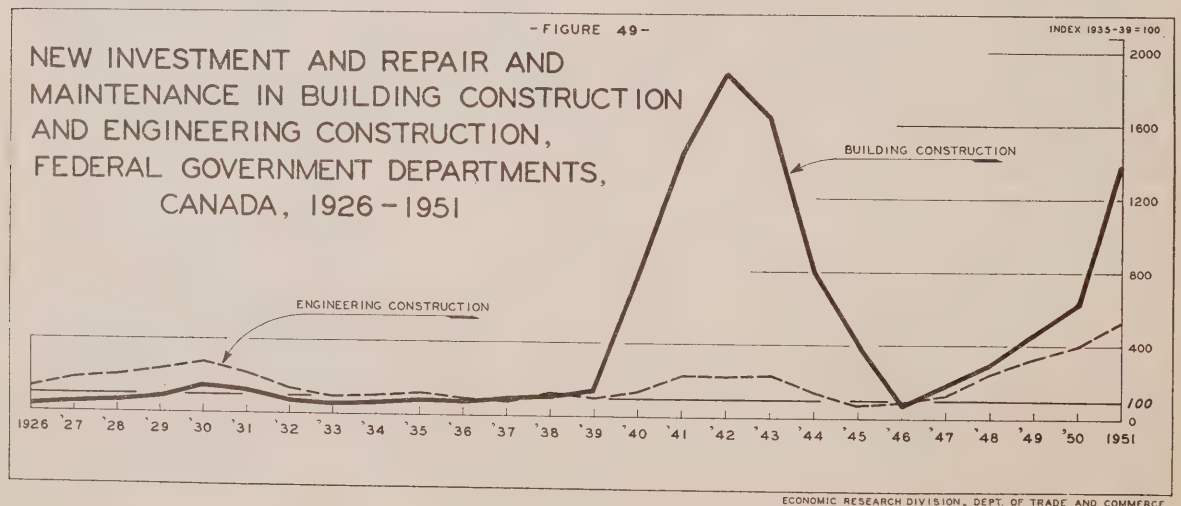
Type of Expenditure	Federal Government Departments—Per cent Change				
	1926-1929	1929-1933	1933-1938	1938-1939	1939-1950
New Investment.....	+ 75	— 55	+ 61	+ 6	+287
Repair and Maintenance.....	+ 78	— 55	+ 97	— 12	+222
Total.....	+ 76	— 55	+ 70	0	+269



#### Investment Expenditures by Type

Examination of Federal Government departmental capital outlay separated into construction, purchases of machinery and equipment, and resources development and conservation projects brings out two interesting observations: (1) there has been a shift from undertaking construction projects to greater outlay on resources development and conservation and on new machinery

and equipment; and (2) even within the construction field, greater importance is now being attached by the Federal Government to building projects ranging from hospitals to aircraft hangars, than to engineering projects such as canal building (see Figure 49). Engineering types of works are now of greater importance in provincial than in Federal Government investment (see p. 106).



To illustrate: in 1930, 80 per cent of the Federal Government new investment outlay was for public works projects of a construction type. By 1948 these projects had declined to 61 per cent. At the same time

resources development and conservation expenditures rose in importance, from 9 to 16 per cent, and machinery and equipment purchases from 11 to 23 per cent (see below).

Type of Expenditure	Federal Government Departments					
	1930		1937		1948	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Public Works <sup>1</sup> .....	81.1	80	30.3	62	93.6	61
Resources Development and Conservation.....	8.9	9	7.2	15	25.3	16
Machinery and Equipment.....	11.3	11	11.5	23	36.2	23
Total New Investment and Repair and Maintenance <sup>2</sup> .....	101.3	100	49.0	100	155.1	100

<sup>1</sup> The phrase "Public Works" is used to denote both construction expenditures and planning and supervisory outlay associated with the execution of public works.

<sup>2</sup> Including duplications (see Table 87).

Construction projects currently undertaken by the Federal Government cover many types of building and engineering works. Federal buildings include such projects as the construction of post offices, postal terminals in larger cities, buildings for customs and immigration, experimental farm buildings, airport buildings, research and laboratory buildings, barracks, housing for married service personnel, hospitals, schools, and a great variety of general purpose departmental buildings. Engineering projects include certain roads and bridges under Federal jurisdiction, runways and airports, defence installations, and harbour works such as wharves, piers, breakwaters, and the dredging and improving of navigable waters.

Federal outlay in the resources development and conservation field covers a wide variety of projects and services such as mineral exploration, investigations and development; geological and topographical surveys; land reclamation, protection and development; irrigation and water conservation; air photography and mapping; forest conservation and development; laboratory research; road building to open up new territory or for mining or logging purposes; fish patrol and protection; fur conservation, etc. The transfer of jurisdiction over natural resources to the western provinces in 1930 reduced direct Federal responsibilities in this field. However, an expanded program in the National Parks and the Yukon and Northwest Territories, and the undertaking of several large-scale projects such as soil and water conservation and storage works under the Prairie Farm Rehabilitation Act, the protection of the forests on the eastern slopes of the Rockies, the reclamation and rehabilitation of the Maritime marshlands,

and flood control in the Fraser Valley have been responsible for new large outlays made on projects related to Canadian resources development and conservation.

The fairly substantial expenditures on machinery and equipment stem from the varied nature of Federal responsibilities. Among the government-owned enterprises, the railways purchase locomotives, rolling stock of all kinds, machine shop equipment, etc., the National Harbours Board buys cranes and other loading equipment, elevator equipment, tractors, small vessels, etc., while the Canadian Broadcasting Corporation makes large expenditures for radio and communications equipment. The government-operated hospitals for veterans and for Indians require a large quantity of hospital and scientific equipment. The purchases by Government departments of machinery and equipment include floating equipment such as dredges, scows, tugs and scientific vessels, road construction machinery, motor vehicles, marine and airfield equipment, radio and telephone equipment, laboratory and scientific equipment, etc.

The large Federal expenditures on the creation and maintenance of a national transportation system up until 1930, as indicated above, weighted the scale heavily in favour of the engineering rather than the building type of construction. Since the completion of the Welland Canal the Federal Government has concentrated less on engineering works, and the construction and maintenance of its buildings have been absorbing a larger part of its investment expenditures. Thus, while engineering projects accounted for 76 per cent of the total construction expenditures in 1930, only 52 per cent was devoted to this type of construction work in 1950 (see below).

Type of Construction	New and Repair and Maintenance Construction—Federal Government Departments					
	1930		1937		1950	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Building.....	19.6	24	11.5	38	81.3	48
Engineering.....	61.1	76	18.4	62	88.2	52
Total.....	80.7	100	29.9	100	169.5	100

### Federal Investment Expenditures by Province

Federal investment outlay per capita varies widely from province to province and from year to year for individual provinces. On the whole, such variations in per capita expenditures as are apparent reflect to some extent the different responsibilities which the Federal Government exercises in the various economic regions in Canada. There are certain large expenditures required annually in some provinces because of their geographical position. The high per capita outlay consistently shown for the Maritime Provinces and British Columbia is due in part to the need for large expenditures on maritime works, i.e., docks, breakwaters, piers, dredging and channel deepening, harbour facilities and aids to navigation. Together with the relatively small population in these areas this gives rise to a high per capita rate. Similarly, the continuing expenditure of sizeable sums on the inland canal system and the St. Lawrence-Great Lakes shipping route is an important factor in maintaining a usually high per capita outlay for both Quebec and Ontario in spite of their large populations.

The fluctuations that occur from year to year in the per capita outlay for individual provinces are often due to expenditures on a single large project. For example, the high per capita outlay for Manitoba in 1930 was largely due to the construction of the Hudson Bay Railway. Similarly, in more recent years the large expenditures in Alberta under the Prairie Farm Rehabilitation Act and for major irrigation and water conservation projects tend to keep up the per capita expenditures in that province. The Ontario level is affected by the size of the public building program undertaken in Ottawa, although these facilities serve the country as a whole. Other large outlays for special purposes, whether casual or of a continuing nature, affect the per capita outlay. Civilian airport development, large defence construction works, new public buildings, etc., will raise notably in a given year the provincial per capita outlay in the region of their implementation, especially if the population is small. For example, an expenditure of over \$400,000 on the Summerside airport in 1948 was largely responsible for giving Prince Edward Island, with its small population, the highest per capita expenditure in 1948. Because of this variability, per capita figures of Federal Government investment on a provincial basis must be interpreted with full regard for the

detailed responsibilities which underlie annual expenditures.

Summary data on a per capita basis by province for 1937 and 1948 are shown below in tabular form. With the above qualifications, Nova Scotia was the leading province in 1937, followed by British Columbia, Prince Edward Island, Quebec, New Brunswick, Alberta, Ontario, Saskatchewan and Manitoba in descending order, with outlay per person dropping from \$8.38 to \$1.40. The per capita expenditure for all of Canada was \$4.11 in the year 1937 and rose to \$11.04 in 1948 with Prince Edward Island having the highest provincial per capita outlay of \$26.88 and Saskatchewan with \$4.68 the lowest.

Province	Per Capita New Investment and Repair and Maintenance—Government Departments—Dollars	
	1937	1948
Prince Edward Island.....	6.45	26.88
Nova Scotia.....	8.38	22.52
New Brunswick.....	3.89	17.69
Quebec.....	4.23	5.64
Ontario.....	3.41	8.45
Manitoba.....	1.40	15.32
Saskatchewan.....	3.04	4.68
Alberta <sup>1</sup> .....	3.81	21.81
British Columbia <sup>2</sup> .....	7.85	22.39
All Provinces <sup>3</sup> .....	4.11	11.04

<sup>1</sup> Includes Northwest Territories.

<sup>2</sup> Includes Yukon.

<sup>3</sup> Excludes Newfoundland.

In dollar terms Ontario, Quebec and British Columbia, the three provinces with the largest population, are usually in the first three places, followed by Alberta, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, and Prince Edward Island. In 1948, when the per capita expenditure for Prince Edward Island was the largest of any province, the outlay in dollars of 2.5 million was the smallest (see below).



Province	New Investment and Repair and Maintenance—Government Departments					
	1930		1937		1948	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Prince Edward Island.....	0.6	1	0.6	1	2.5	2
Nova Scotia.....	5.7	6	4.6	10	14.3	10
New Brunswick.....	4.4	4	1.7	4	8.9	6
Quebec.....	16.0	16	13.3	29	21.4	15
Ontario.....	42.5	43	12.4	28	36.3	26
Manitoba.....	8.3	8	1.0	2	11.6	8
Saskatchewan.....	5.5	6	2.8	6	4.0	3
Alberta <sup>1</sup> .....	5.3	5	3.0	7	18.8	13
British Columbia <sup>2</sup> .....	10.4	11	6.0	13	24.4	17
All Provinces <sup>3</sup> .....	98.7	100	45.4	100	142.2	100

<sup>1</sup> Includes Northwest Territories.

<sup>2</sup> Includes Yukon.

<sup>3</sup> Excludes Newfoundland.

### Detailed Information on Federal Public Investment

More detailed information on the role of Federal Government public investment, including data on public

works by types, on resources development and conservation, and on machinery and equipment purchases, together with data on repair and maintenance expenditures, for the years 1926 to 1951 will be found in Tables 82 to 89 in Part II.

## SECTION 8. INVESTMENT BY PROVINCIAL GOVERNMENTS

### Provincial Participation in Public Investment

Provincial governments, according to the constitutional division of responsibilities, have jurisdiction, broadly speaking, over "local works and undertakings." Consequently expenditures by provincial governments on the expansion and maintenance of public facilities are made in the main on two broad groups of investment projects: (a) the development, protection and conservation of natural resources, and (b) works required for the provision of provincial public services of various kinds.

Investment expenditures on natural resources development, protection and conservation are made in such fields as forests, water systems, lands, minerals and natural gas. Related capital undertakings include expenditures on the development of tourist trade and on surveys, research and experimentation which contribute to greater knowledge of the existence and use of natural resources.

Capital and repair and maintenance expenditures on works required for the performance of public services provided by provincial governments or their agencies are made on transportation, communications, health, and educational and other public services provided through government departments, and on electric power facilities. Many service functions of a local nature falling within the jurisdiction of provincial governments are carried out by municipal and other organized units such as improvement districts (see Section 9).

Public investment projects undertaken by provincial governments and their agencies may also be classified on an administrative basis, i.e., according to the type of public body which is actually responsible for the execution of the projects. Three types of agencies are involved: (a) government-owned enterprises, mainly public utilities; (b) government-operated institutions, mainly hospitals; and (c) government departments which carry out the ordinary administrative responsibilities of provincial governments. In this study separate estimates of investment, repair and maintenance expenditures by provincial governments are provided on a functional as well as an administrative basis. The data analyzed below refer to the aggregate investment expenditures made by provincial governments and their agencies. They therefore include expenditure of grants received, for example, from the Federal Government, and exclude payments made to other bodies, e.g., capital subsidies to municipalities.

### Changing Role of Provincial Governments

Before World War I provincial governments played a comparatively minor role in public investment.<sup>1</sup> In the field of transportation and communication the major projects either had been undertaken directly by the Federal Government or received material assistance from it. Large projects of this type included the development of railways, canals and shipping facilities. With regard

<sup>1</sup> In some cases, however, provincial governments initiated or helped to finance fairly important projects in this early period. Examples are the Temiskaming and Northern Ontario Railway, and provincial telephone systems on the Prairies.

to local roads and public buildings, a great deal of the work was carried out by municipalities. Standards of such projects varied greatly depending on local needs and financial resources.

Three factors contributed to increasing participation by provincial governments in the public investment field after World War I. First, the development of motor transportation and, associated with it, the growth of inter-community trade and tourist traffic called for a well laid out network of provincial highways and roads of high standards. Secondly, the growing process of urbanization and industrialization called for large public utility facilities, e.g., electric power, telephones, etc., the establishment of which was frequently beyond the means of individual municipalities. A large part of the public utility development was carried out by private groups. Some of it was undertaken by provincial governments, the notable examples being the Ontario Hydro-Electric Power Commission and provincially operated telephone systems in the Prairie region. Thirdly, after the first half-century of Canadian Confederation most of the easily accessible land had been settled and further development of the country, particularly the northland, required heavy capital outlay in the form of roads, colonization efforts, etc. At the same time, in response to public demand, provincial governments began to place greater emphasis on the development and conservation of natural resources within provincial boundaries which would be complementary to the industrial and commercial expansion so greatly accelerated by the events of World War I.

In short, in the last four decades provincial governments have played an increasingly important role in helping to raise the productive capacity of the Canadian economy. The most notable fields of endeavour have

been highways, public utilities and natural resources development and conservation. More recently health and community facilities have also become important.

The changing role of provincial government investment is indicated by its rising contribution to total public investment. On the basis of capital outlay made by provincial government departments, that is, excluding public utilities and institutions, the provincial share of total public capital expenditures increased from 33 per cent in 1926 to 40 per cent in 1930 and 66 per cent in 1937, the highest contribution on record. With the outbreak of World War II provincial capital outlay declined in relative importance as the Federal Government embarked on a large-scale military and industrial expansion program. With the end of World War II Federal Government investment expenditures in turn declined in relative importance and provincial investment became more significant in total public investment. By 1948 provincial government departments were responsible for about one-half of total public investment, with the Federal Government and the municipalities each being responsible for one-quarter. In 1950, as the result of increased capital outlay associated with defence, Federal public investment rose again in relative terms, as the data below show.

Considering broad changes over the last two decades and including capital outlay by all government agencies, (i.e., government-owned enterprises, government-operated institutions and housing) and government departments, provincial government investment has risen in importance from 31 per cent in 1930 to 41 per cent in 1950. Municipal governments have about maintained their relative position and the Federal Government's share has declined somewhat in spite of the 1950 increase of capital expenditures associated with defence.

Governments	New Investment—Per cent Distribution									
	1926		1930		1937		1948		1950	
	Government Departments	All Agencies	Government Departments	All Agencies	Government Departments	All Agencies	Government Departments	All Agencies	Government Departments	All Agencies
Federal.....	38	42	41	43	18	29	25	33	36	32
Provincial.....	33	24	40	31	66	52	50	41	40	41
Municipal.....	29	34	19	26	16	19	25	26	24	27
Total.....	100	100	100	100	100	100	100	100	100	100

### Investment Projects Receiving Federal Assistance

Since the estimates of provincial government investment appraised in this chapter include Federal Government capital grants, a brief statement of the character of these grants may be helpful. As provincial governments were called upon in the last several decades to embark on large developmental programs, they found that their financial resources were not always adequate

to proceed with urgent and desirable capital facilities required to keep pace with the rate of economic growth in their respective regions. As a result, provincial governments turned to the Canadian Government for financial assistance on a basis different from the annual Federal subsidies granted to them under the terms of the union.

Requests for Federal aid to provincial works and development projects have been met by the Federal



Government by grants-in-aid which have varied over the last several decades in extent and in the type of arrangement. Broadly speaking, financial assistance has been provided by the Federal Government along three lines:

- (a) for projects which were national in scope and which would benefit the economy as a whole, e.g., the Trans-Canada Highway and hospital construction;
- (b) for projects which were necessitated by a national emergency, e.g., contributions to relief works in the depressed thirties and grants following flood and fire disasters (the Fraser and Red River floods and the Rimouski and Cabano fires in the post-World War II period);
- (c) for projects which were of special regional developmental character or of an interprovincial type and which provincial governments found it beyond their means to finance, e.g. certain irrigation and water conservation projects on the Prairies, the Maritime Marshlands Reclamation Project and the Le Pas—Flin Flon mining road in Manitoba.

The actual execution and supervision of such projects was undertaken by provincial governments, with the Federal Government agreeing with provincial authorities about the standard of performance and reserving to itself the right of inspection and audit. This was the case, for example, in some of the relief works and tourist highway and mining road projects before the war, and with regard to the Trans-Canada Highway, construction of hospitals and the forest protection and development program in recent years. In some instances in which the Federal Government had machinery in existence in the field, public investment projects were undertaken by Federal Government agencies with provincial participation. Examples of this are the joint housing projects under Section 35 of the National Housing Act, 1944.

Financial participation by the Federal Government in provincial projects consisted primarily of capital cost contributions limited in amount and period covered at the time agreements were concluded. Only rarely did the Federal Government contribute to operating costs.

While some sporadic conditional grants were made to provincial governments for public projects before 1919, continuing assistance dates from the passage of the Canada Highways Act in that year. This Act remained

in force until April 1, 1928, and under it close to \$20 million of Federal funds were paid out to provincial governments to assist them in the development of a highway network of high standards. In 1929 the first Federal grant was made to assist in the construction of tourist highways<sup>1</sup> and since then a wide variety of highways, mostly related to resources development (i.e., mining roads, colonization roads, logging roads and roads to open up undeveloped areas), have received Federal assistance. Some of these roads qualified for Federal aid under the various Unemployment Relief Acts of 1930 to 1940 (see Appendix C), while many others were financed in part with Federal funds under special agreements. The most important post-war development in this field was the passing of the Trans-Canada Highway Act in 1949,<sup>2</sup> which provided up to \$150 million of Federal funds to the provinces over a period of seven years for a national coast-to-coast highway.

In recent years a number of Federal grants for land protection, reclamation and development have been made available to the provincial authorities both by special Acts of Parliament and by individual appropriations in the annual Federal estimates. Grants have been made under the Eastern Rocky Mountain Forest Conservation<sup>3</sup> and the Maritime Marshland Rehabilitation Acts<sup>4</sup> and under special appropriations such as those for major irrigation and water storage projects in the Prairie Provinces, land protection, reclamation and development in British Columbia and a general vote for the protection, reclamation, clearing and settlement of new lands.

Some Federal grants were made to assist flood control work under the relief measures adopted in the thirties (see Appendix C). More recently the Federal Government has contributed to the Fraser Valley Dyking Scheme and to the Red River and Upper Thames flood control projects.

For a number of years Federal authorities have co-operated with provincial governments in forest pest control and fire protection. The Canada Forestry Act of 1949<sup>5</sup> has greatly extended the fields in which Federal and provincial governments can co-operate in the conservation and development of forest land in Canada.<sup>6</sup>

Federal grants to the provinces to provide adequate hospital accommodation and health services were introduced in 1948 and are continuing. Grants for the construction of new hospital accommodation are paid to the provinces which in turn must at least match the Federal contribution. Federal grants are not to exceed one-third of the total cost.<sup>7</sup>

<sup>1</sup> This was done through a special agreement between the Federal Government and the British Columbia Government with the former agreeing to build part of a highway between the Pacific coast and Banff and other park areas and the latter undertaking to complete the remaining link of the system.

<sup>2</sup> 13 George VI, Chap. 40.

<sup>3</sup> 11 George VI, Chap. 59 (1947).

<sup>4</sup> 11-12 George VI, Chap. 61 (1948).

<sup>5</sup> 13 George VI, Chap. 8.

<sup>6</sup> On May 2, 1951 the Minister of Resources and Development announced as a first step towards a national forestry program two cost-sharing arrangements with provincial governments: (1) a 50 per cent Federal contribution to complete provincial forest inventories; and (2) a 25 per cent Federal contribution to the cost of reasonable programs of reforestation provincial Crown lands, provided the amount expended each year by the provincial governments is not less than the average expenditure of the last three years. *House of Commons Debates*, May 2, 1951, pp. 2603-4.

<sup>7</sup> Statement by the Prime Minister, *House of Commons Debates*, May 14, 1948, p. 3934. See also *Department of National Health and Welfare Annual Report 1950-1951*.



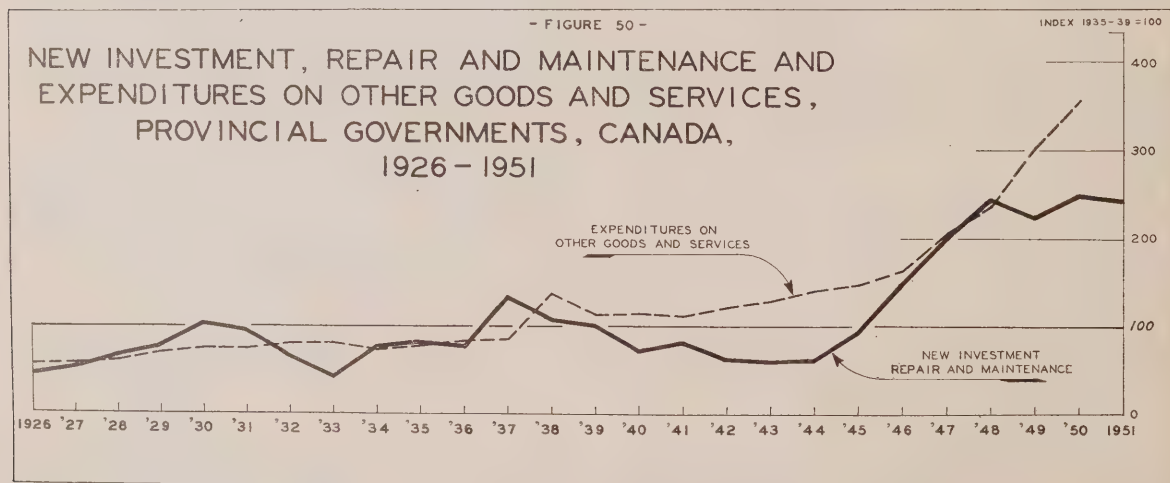
An amendment to the National Housing Act of 1944 dated December 10, 1949<sup>1</sup> has made it possible for the Federal and provincial governments to undertake joint housing and urban land development projects with the Federal Government agreeing to pay 75 per cent of the capital costs and the participating provinces (or their agents) paying the remaining 25 per cent. Profits and losses from such joint undertakings would be shared in the same proportions.

On the whole, Federal Government financial participation in provincial investment and development projects has varied significantly both in form and in extent over the last three decades, but the principle of participation on national grounds has become well established in this period.

## Investment and Government Expenditures

The increased outlay for various public services and rising welfare payments by provincial governments resulted in these governments spending proportionately less on capital projects in the post-war period than they did in the thirties. If repair and maintenance outlay is added, spending was of similar proportion as in the twenties (see Figure 50). New investment by provincial government departments in 1950 comprised about one-third of all expenditures on goods and services by provincial governments and something like one-fifth of total provincial government expenditures on current and capital account, including transfer payments. In the peak year of the thirties, 1937, the comparable proportions were about one-half and one-third (see below).

Year	New Investment by Government Departments			New Investment and Repair and Maintenance by Government Departments		
	Amount \$ Mill.	Per cent of Total Provincial Expenditures on Goods and Services	Per cent of Total Provincial Expenditures on Capital and Current Account	Amount \$ Mill.	Per cent of Total Provincial Expenditures on Goods and Services	Per cent of Total Provincial Expenditures on Capital and Current Account
1926.....	28.1	27	18	49.1	47	31
1930.....	77.1	42	30	112.2	61	43
1937.....	112.0	49	31	146.4	64	41
1948.....	198.3	40	26	271.9	54	35
1950.....	188.2	32	20	275.6	47	29



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<sup>1</sup> 13 George VI, Chap. 30.

These data shed some light on two aspects of provincial public investment experience. First, a great deal of importance was attached to the employment effect of public investment expenditures in the thirties, when unemployment was high and incomes were generally low. With Federal Government assistance provincial relief works expenditures soared<sup>1</sup> and were finally merged with other investment projects financed in various ways. The end result was that provincial government capital expenditures including repair and maintenance made up almost two-thirds of provincial government expenditures on goods and services in 1937.

Secondly, supply shortages made a rapid increase in provincial public investment expenditures difficult immediately following World War II, but this difficulty was less of a hindrance to the expansion of public services and of transfer payments for social and welfare purposes. As a result these expenditures rose more rapidly in this period than did capital outlay. By 1950, as the pressure for larger expenditures for public projects and resources development increased and the supply situation—at least early in the year—appeared to have improved, arrangements were made for expanding capital programs. However, with a deterioration of the international outlook in mid-1950 and a tightening supply situation the period of completion of some of the projects under way was extended, while in other cases projects

not already under way were postponed. As a result, provincial capital expenditures by government departments in 1950 did not exceed those of 1948.

### Investment Expenditures by Different Agencies

It is frequently not realized that less than one-half of provincial public investment expenditures are made through government departments. The bulk of capital outlay is made through provincial government-owned enterprises, of which publicly owned hydro systems are the most important. In 1950, for example, provincial government-owned enterprises contributed an estimated 50 per cent to total provincial new investment, provincially operated institutions, mainly hospitals, 4 per cent and departmental outlays, the remaining 46 per cent.

The growing importance of provincial government enterprises is indicated by the fact that they contributed only 27 per cent in 1930 and 10 per cent in 1937, as against 50 per cent in 1950. The data are also indicative of the difficulties that existed in the thirties in expanding significantly investment expenditures by provincially owned enterprises, and the need therefore to rely to a large extent on direct government public projects to cope with unemployment problems as they were faced in that decade. After World War II, however, when emphasis was on business expansion, government-owned enterprises became more important and departmental programs were given lesser priority (see below).

Provincial Agency	New Investment					
	1930		1937		1950	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Enterprises.....	30.3	27	13.5	10	203.0	50
Institutions.....	4.8	4	4.5	4	18.5	4
Departments.....	77.1	69	112.0	86	188.2	46
Total.....	112.2	100	130.0	100	409.7	100

Over the last twenty-five years capital outlay by publicly owned enterprises has tended to fluctuate more substantially than direct government investment (see Figure 51). This is true both in the upswing phase of the twenties and the forties and the downswing phase of

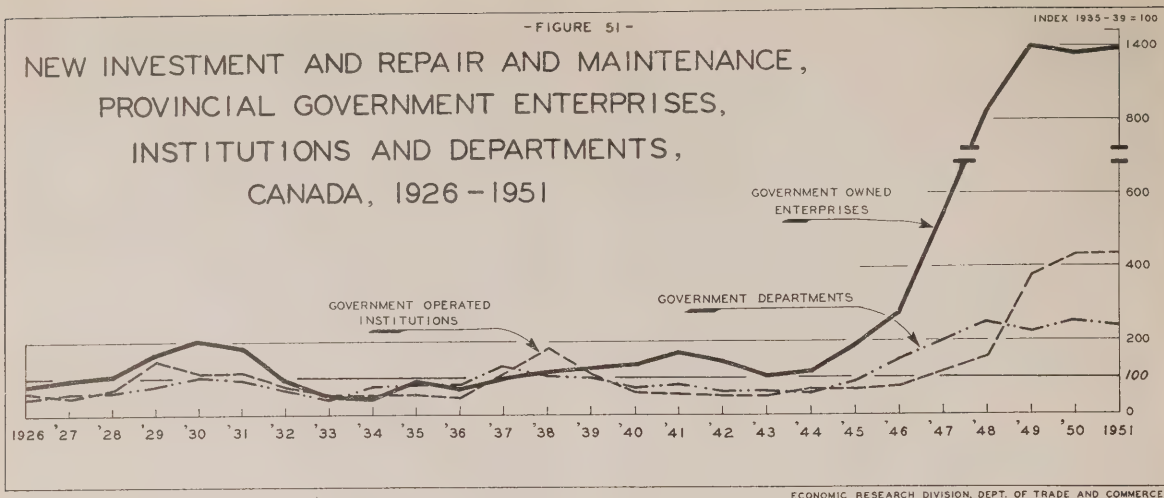
the thirties. The late thirties are an exception, mainly because of the combined relief and general works program which reached comparatively high levels in 1937 (see below).

Provincial Agency	New Investment—Per cent Change				
	1926-1930	1930-1933	1933-1937	1937-1939	1939-1950
Enterprises.....	+186	— 86	+207	+ 7	+1,300
Institutions.....	+140	— 63	+181	— 2	+ 320
Departments.....	+174	— 64	+303	— 35	+ 159
Total.....	+176	— 70	+285	— 30	+ 348

<sup>1</sup> For a summary of the extent and the role of relief works in Canada see Appendix C.

-FIGURE 51-

# NEW INVESTMENT AND REPAIR AND MAINTENANCE, PROVINCIAL GOVERNMENT ENTERPRISES, INSTITUTIONS AND DEPARTMENTS, CANADA, 1926-1951



## New Investment and Repair and Maintenance

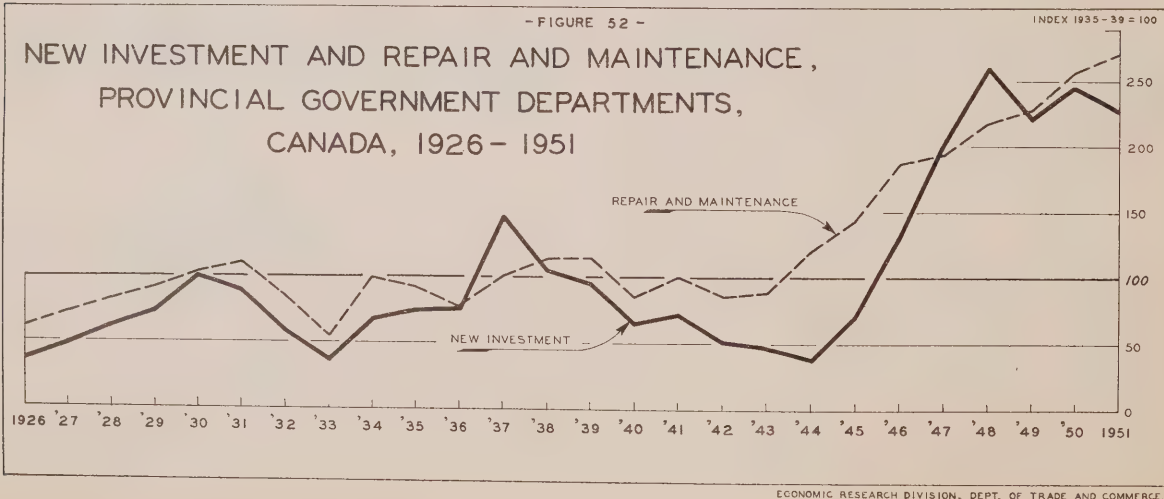
As in most other sectors, new investment by provincial governments has fluctuated more substantially than repair and maintenance outlay (see Figure 52). Provincial governments have found it easier to postpone new projects than the maintenance and repair of existing

structures and installations. Further, in the thirties, when for most years great emphasis was placed on the employment-creating effects of investment expenditures, repair and maintenance outlay with its greater labour content per dollar spent was in a preferred category. This applies particularly to such projects as highways and forestry maintenance (see below).

Type of Expenditure	Provincial Government Departments—Per cent Change				
	1926-1930	1930-1933	1933-1937 -	1937-1939	1939-1950
New Investment.....	+174	- 64	+303	- 35	+159
Repair and Maintenance.....	+ 67	- 45	+ 78	+ 13	+125
Total.....	+129	- 58	+211	- 24	+147

-FIGURE 52-

# NEW INVESTMENT AND REPAIR AND MAINTENANCE, PROVINCIAL GOVERNMENT DEPARTMENTS, CANADA, 1926-1951





### Investment Expenditures by Type

It has been emphasized earlier that one of the three reasons for the increased importance of provincial public investment in total public investment has been the growing concern of provincial governments with the development, conservation and protection of natural resources. This interest has led to increased expenditures on natural resources over the last several decades. For example, outlay in 1948 was of the order of \$28 million, about twice what it had been in 1930, the pre-war peak. These increases have not necessarily been in line with rising provincial government expenditures of *all* types. By 1948, the year for which the last complete figures are

available, expenditures on resources development and conservation comprised only 10 per cent of total new investment and repair and maintenance outlay by provincial governments. This proportion is slightly less than the 12 per cent indicated for 1930, and is about the same ratio as prevailed in 1937.

Provincial expenditures on machinery and equipment are of minor importance, varying between 5 and 8 per cent of new investment and repair and maintenance outlay. Over the last 25 years construction has been responsible for over four-fifths of total provincial public investment (see below).

Type of Expenditure	Provincial Government Departments					
	1930		1937		1948	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Public Works <sup>1</sup> .....	97.1	81	133.7	86	242.7	82
Resources Development and Conservation.....	13.8	12	14.6	9	28.0	10
Machinery and Equipment.....	7.9	7	7.6	5	24.3	8
<b>Total New Investment and Repair and Maintenance.<sup>2</sup></b>	<b>118.8</b>	<b>100</b>	<b>155.9</b>	<b>100</b>	<b>295.0</b>	<b>100</b>

<sup>1</sup> The phrase "Public Works" is used to denote both construction expenditures and planning and supervisory outlay associated with the execution of public works.

<sup>2</sup> Including duplications (see Table 95).

The 88 to 95 per cent of construction expenditure for engineering reflects the preponderance of highway, road and bridge construction. Only some 5 to 12 per cent of total construction expenditures are made for public

buildings (see below). On the whole expenditures on engineering construction have fluctuated more than outlay on building construction (see Figure 53).

Type of Construction	New and Repair and Maintenance Construction—Provincial Government Departments					
	1930		1937		1950	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Building.....	10.7	12	6.1	5	20.8	9
Engineering.....	82.2	88	123.4	95	209.7	91
<b>Total.....</b>	<b>92.9</b>	<b>100</b>	<b>129.5</b>	<b>100</b>	<b>230.5</b>	<b>100</b>

In every province, the new investment programs in recent years have emphasized the building of roads and bridges. Large outlays for this purpose have provided such motor roads as Ontario's four-lane Queen Elizabeth highway, Nova Scotia's scenic Cabot Trail, and the newly opened Hope-Princeton Highway in British Columbia. These are but a few of the countless roads that have been built all across the country, some to link the larger cities, others to give easier access to the smaller towns and villages and still others to aid in opening up the northland. As an adjunct to extensive highway construction a large bridge building program was also undertaken, particularly in Quebec where the necessity of bridging the St. Lawrence has called for substantial expenditures on bridges at such points as Quebec and Montreal.

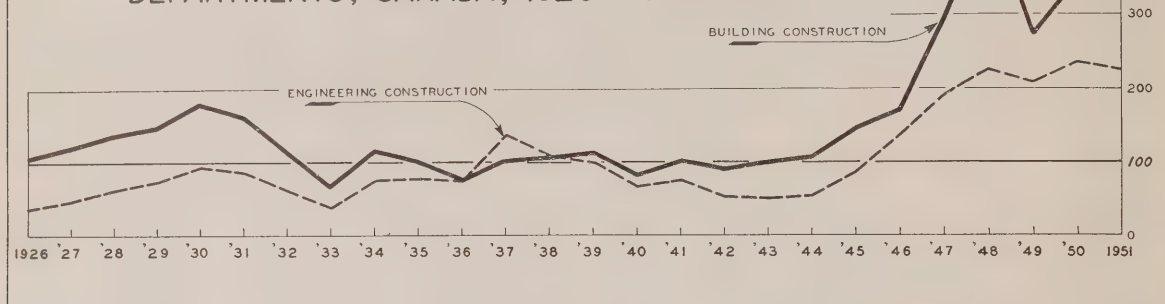
While the major share of new investment has been accounted for by the various highway programs, provincial governments have also expended large sums on a great variety of other public projects. Some undertakings such as a cold storage plant in Prince Edward Island and bait depots in Newfoundland have been built in connection with the Federal Government's endeavour to encourage and assist primary industries. The task of protecting and developing natural resources has involved large outlay on items like fire towers and forest fire-fighting equipment in nearly all provinces. The tourist trade has been encouraged by such projects as the building of a bungalow hotel in Nova Scotia. In addition the provincial governments have had to make large capital outlays in connection with maintaining essential services, e.g., administrative buildings and court houses.

The provincial governments have also taken a leading part in the extension of public utilities and in the provision of institutional facilities. Major undertakings in these lines would include the building of cottage hospitals in Newfoundland, the establishment of technical schools in

Nova Scotia and Quebec, hydro developments in Ontario and British Columbia and the provision of telephone service on the Prairies. Expenditures of this nature are included in the categories of government-owned enterprises and government-operated institutions (see pp. 76 and 95).

- FIGURE 53 -

# NEW INVESTMENT AND REPAIR AND MAINTENANCE IN BUILDING CONSTRUCTION AND ENGINEERING CONSTRUCTION, PROVINCIAL GOVERNMENT DEPARTMENTS, CANADA, 1926-1951



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Type of Expenditure	Resources Development and Conservation—Thousands of Dollars				
	1926	1930	1933	1937	1948
<i>Forestry</i>					
Forest protection.....	2,922	5,642	2,920	5,493	7,800
Administrative expenses (including grazing lands).....	667	1,585	1,282	1,210	5,900
Research and reforestation.....	279	658	357	549	2,400
Parks and roads to parks.....	90	201	163	523	400
Sub-total.....	3,958	8,086	4,722	7,775	16,500
<i>Minerals</i>					
Mineral survey and development.....	120	355	123	251	— <sup>1</sup>
Mining roads and trails.....	414	231	203	2,145	— <sup>1</sup>
Sub-total.....	534	586	326	2,396	1,200
<i>Land</i>					
Drainage and irrigation.....	324	964	648	873	4,000
Land clearing.....	59	543	563	914	600
Soil surveys.....	10	4	3	5	20
Sub-total.....	393	1,511	1,214	1,792	4,620
<i>Water Resources</i>					
Power surveys and administrative expenses.....	97	27	67	64	800
Water storage.....	281	434	210	255	400
Sub-total.....	378	461	277	319	1,200
<i>Game and Fish</i>					
Game and fish protection.....	546	1,289	890	1,064	1,400
Game and fish development.....	175	497	326	439	900
Sub-total.....	721	1,786	1,216	1,503	2,300
<i>Surveys and Inventories</i> .....	779	1,207	392	785	1,100
<i>Miscellaneous</i> .....	175	134	12	73	1,000
Total.....	6,938	13,771	8,159	14,643	27,920

<sup>1</sup> Breakdown not available.

Resources development expenditures cover a great variety of projects and services. As the preceding table shows, provincial government services include forest ranging, fish and game protection, and surveying. In addition, various developmental projects are undertaken such as mining roads and trails, drainage, irrigation and reclamation. Between 1926 and 1930 the total outlay on conservation and development of natural resources was almost doubled, but declining revenues in the early thirties made it necessary for a number of provinces to economize. Maintenance services were sharply curtailed and special developmental projects initiated during the late twenties were virtually abandoned. It was not until 1937 that outlays exceeded the level reached in 1930, but generally speaking the bulk of these expenditures was for conservation work undertaken specifically to provide employment opportunities. The most substantial expansion in resources development took place after 1945. By 1948 outlay of this type was almost twice what it had been in 1937, but since costs had also risen substantially over this period there was little increase in terms of volume of services performed and new projects undertaken. While this appears to be the situation in *overall* terms, conservation services in certain fields and in some provinces have risen notably above pre-war levels. The bulk of resources development expenditures has been made by three provinces, Quebec, Ontario and British Columbia, together accounting for between 75 and 80 per cent of total outlay in recent years. For most of the period British Columbia has led on a per capita basis.

### Investment Expenditures by Province

The fact that expansion and maintenance of public facilities falls more heavily on some of the less densely populated areas is indicated by the fact that such provinces as Prince Edward Island, Nova Scotia, New Brunswick, Alberta and British Columbia may spend nearly twice as much per capita on the provision of

public facilities as Ontario and Quebec. The two latter provinces, although they maintain high standards of public facilities that compare favourably with those of other provinces, spend much less per person on investment because of their larger populations. There remain other provinces with considerably smaller populations than Ontario and Quebec which make per capita investment similar to the two central provinces, resulting in less extensive public facilities (see below).

Province	Per Capita New Investment and Repair and Maintenance—Government Departments—Dollars	
	1937	1950
Newfoundland.....	—	24.51
Prince Edward Island.....	10.75	21.88
Nova Scotia.....	23.13	26.44
New Brunswick.....	28.83	33.91
Quebec.....	14.84	13.15
Ontario.....	12.98	18.40
Manitoba.....	5.45	10.07
Saskatchewan.....	4.45	17.96
Alberta.....	5.80	32.85
British Columbia.....	17.79	36.38
All Provinces.....	13.25	19.94 <sup>1</sup>

<sup>1</sup> Per capita figure for all provinces excluding Newfoundland is \$19.82.

Alberta has made the greatest strides in expanding and improving public structures, installations and other facilities. New investment and repair and maintenance by all provincial governments rose an estimated 89 per cent between 1937 and 1950 (see below). In Alberta the increase was more than five-fold. In Saskatchewan the rise was nearly three-fold and in British Columbia over one hundred per cent. Little increase is shown for Quebec, but this is accounted for by the fact that investment in that province was substantially higher in 1948 than it was in 1950.

Province	New Investment and Repair and Maintenance—Provincial Government Departments						
	1930		1937		1950		Per cent Increase 1937-1950
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent	
Newfoundland.....	—	—	—	—	8.7	3	—
Prince Edward Island.....	0.6	1	1.0	1	2.1	1	110
Nova Scotia.....	5.6	5	12.7	9	17.4	6	37
New Brunswick.....	9.9	9	12.6	8	17.7	6	40
Quebec.....	21.1	19	46.6	32	52.3	19	12
Ontario.....	30.9	27	47.2	32	83.0	30	76
Manitoba.....	5.2	5	3.9	3	7.9	3	103
Saskatchewan.....	13.1	11	4.1	3	15.7	6	283
Alberta.....	8.8	8	4.5	3	29.4	11	553
British Columbia.....	17.3	15	13.5	9	41.4	15	207
All Provinces.....	112.5	100	146.1	100	275.6	100	89

### Detailed Information on Provincial Public Investment

More detailed information on the role of public investment, including data on public works by types, on

resources development and conservation, and on machinery and equipment purchases, together with data on repair and maintenance expenditures for each of the ten provinces for the years 1926 to 1951 will be found in Tables 90 to 107 in Part II.



## SECTION 9. INVESTMENT BY MUNICIPAL GOVERNMENTS

### Growth of Municipal Responsibilities

Municipalities and other local administrative units are Canada's most decentralized form of government. They derive their authority from provincial governments which, according to the constitutional division of responsibilities, have exclusive jurisdiction over property and civil rights, municipal institutions, education, the administration of justice, the establishment and maintenance of prisons, hospitals, asylums and charitable institutions, the public land of the province, local works and undertakings, and other matters of a local nature.<sup>1</sup> The contribution of municipal governments and of other organized units, e.g., improvement districts, school districts, water districts and local conservation authorities, to public investment is circumscribed by the fields under their jurisdiction and by the degree of supervision and regulation exercised by provincial governments. The responsibilities of local governments are set out by provincial statutes, which also provide the general form of municipal organization. Municipal responsibilities may vary from province to province, but municipal functions have certain broad characteristics in common.

Municipal functions may be mandatory or permissive. Mandatory functions frequently include responsibility within municipal areas and other districts for public facilities, e.g., roads, bridges, aid to the aged and indigent, etc., for the administration of justice, for education and public health and welfare, and for rendering such essential services as police, fire and sanitary protection.

Permissive functions usually include the authority to provide a variety of services and assistance covering such undertakings as library and museum facilities, welfare extension services, city beautification, day nurseries and supplementary hospital facilities, marketing and storage facilities, harbour and river improvement, etc.

The line between mandatory and permissive municipal functions is not clearly drawn either by statutory and regulatory provisions or in actual practice. Both types of functions lead municipal governments and other organized units to make capital expenditures, at times substantial and at times more moderate, for the expansion and improvement of public facilities and for their maintenance and repair. Characteristics common to most municipalities in Canada in exercising their functions have been summarized thus:

*"(a) Municipalities are empowered to borrow and to create capital debt for the acquisition of undertakings designed to facilitate or make possible all those services which have come to be considered necessities for community dwelling.*

*"(b) Likewise, municipalities are empowered to collect funds for operating expenses, maintenance charges and interest and principal payments on debts, by levying a tax on the real property<sup>2</sup> within the community and by making charges for special services.*

*"(c) While exercising a wide measure of local autonomy municipalities are restricted in the scope of their responsibility, and their revenue source, by their respective provincial governments, and in the final analysis are in all matters subject to it."<sup>3</sup>*

The fact that there exists a great deal of variation in the way in which such bodies exercise their functions can be explained largely by the circumstances which led to the development of local administrative bodies in Canada over the last century. In the three decades that preceded Confederation demand for responsible government, on both the national and local levels, had been growing continuously. This pressure led the Province of Canada in 1841 to pass the first Municipal Act,<sup>4</sup> broadened considerably in scope in 1849. Many of the features of this legislation were incorporated in municipal acts passed by provincial legislatures following Confederation. The British North America Act of 1867 in putting municipalities under provincial jurisdiction did not provide criteria for the establishment of municipal corporations and other local governments. Thus varying practices of local corporations existing prior to Confederation were frequently continued, and subsequent modifications increased the differences among municipal authorities. This is substantially the case in eight provinces. In two provinces, Prince Edward Island and Newfoundland, there exists little municipal organization. These two provinces have a few urban and educational authorities but no rural municipal or county system.

There are, therefore, wide differences in municipal organization across Canada. These extend even to such basic considerations as the criterion of size that distinguishes between "city", "town" and "village". Variation also exists in the form of municipal government, the electoral mechanism, and the voting qualifications. Civic governments hold office for periods varying from one to four years. Executive Committees and Boards of Control are in some instances elected by popular ballot, in others appointed by the City Council. The right to vote in municipal elections may be open to all adult males or restricted to property owners. There is no uniformity in assessment practice and rates, nor in the handling of special problems such as tax concessions to attract new industry, or the treatment of government property.

In considering investment by urban and rural public corporations it is important to bear in mind the differences

<sup>1</sup> British North America Act, Sections 92 and 93.

<sup>2</sup> i.e., assessable property.

<sup>3</sup> Submission to the Royal Commission on Dominion-Provincial Relations, Canadian Federation of Mayors and Municipalities, Montreal, January 1938, pp. 7-8.

<sup>4</sup> Usually referred to as the District Councils Act of 1841 (4-5 Victoria, Chap. 10). This was repealed in 1849 by 12 Victoria, Chap. 80, and replaced by the so-called Baldwin Act (12 Victoria, Chap. 81). See also Adam Shortt, "Municipal History, 1791-1867," *Canada and its Provinces* (ed. Adam Shortt and Arthur G. Doughty) Toronto, 1914, vol. 18, pp. 428 ff.

in municipal organization and responsibilities. They are more indicative of the great number of factors and limitations affecting the investment decisions of local governments than are aggregate figures on municipal investment expenditures.

### Financing of Municipal Investment

Municipal sources of revenue are prescribed by provincial authorities. The main source of current income for municipal corporations is taxes levied on real property. Usually only a small portion of revenues comes from sales taxes, business taxes, license fees, profits made from utility operations and subsidies and grants from provincial governments and other authorities. Borrowing is frequently confined to capital improvement and requires in almost all cases the approval of provincial governments. In practice, therefore, although municipal borrowing is subject to provincial supervision, the extent of municipal capital expenditures for worthwhile projects depends largely on the municipalities' financial resources.

Provincial governments are able to assist local government investment projects in many ways. Some measures are purely permissive, provincial authorities authorizing municipal corporations to proceed with certain projects and to finance the undertakings in a certain manner, most frequently through the sale of municipal bonds. In some instances the provincial government will go further and guarantee municipal bonds, thus facilitating municipal borrowing and perhaps contributing to a reduction in the interest rate. The British Columbia Village Municipalities Assistance Act of 1945<sup>1</sup> is an example of a statute authorizing a provincial government to guarantee both principal and interest of municipal loans for the purpose of financing the purchase, construction, installation, reconstruction and extension of waterworks and sewage systems. Another example is the 1946 Quebec Act to Insure the Progress of Education,<sup>2</sup> which empowered the provincial government to take over the indebtedness incurred by school commissions prior to April 17, 1946 and issue bonds guaranteed by the province to replace the outstanding securities of the school commissions concerned.

In addition to providing authority for municipalities to borrow, and guaranteeing municipal bonds, the most important contributions made by provincial governments to municipal investment are through capital grants and other direct financial assistance. Provincial financial aid is given for numerous local undertakings, including new school and hospital facilities, roads, streets, culverts and bridges, harbour improvements, and drainage facilities.

The extent and nature of provincial and municipal participation in each particular type of project differ

greatly. This may be illustrated by reference to roads. In British Columbia the provincial government constructs and maintains arterial roads, and shares the costs of construction and maintenance of other roads. In addition, a small annual fund is available for making grants to municipalities for road improvement, and the municipalities share substantially in motor vehicle revenue. In Alberta the province constructs and maintains main highways and pays part of the construction costs and the full maintenance costs of secondary highways. The municipalities construct and maintain district highways and local roads. There is also provision for special agreements for highways through urban areas.

The Saskatchewan provincial government is responsible for trunk roads, and local authorities for other roads. Local roads classed as "market roads" may receive some provincial assistance. Roads in the Improvement Districts are a provincial responsibility, although a tax on land is collected in most areas for this purpose. In Manitoba the local authorities maintain roads within their boundaries; rural municipalities maintain secondary and market roads, under provincial supervision and on a shared-cost basis. The province maintains trunk highways except where they pass through cities, towns and villages.

Ontario trunk highways are maintained by the provincial government. Cities, towns and villages formerly maintained all roads within their boundaries, but since 1949 the province has shared this expense. County and township roads are constructed and maintained by these authorities, under provincial supervision and with partial reimbursement from the provincial government. Trunk roads in Quebec are a provincial, secondary roads a municipal responsibility. The province, however, maintains most improved secondary roads, and also shares the cost of approved new construction. In Nova Scotia the provincial government is responsible for roads with the exception of city and town streets, but the province also contributes to the construction and maintenance of trunk roads within the boundaries of the urban units.<sup>3</sup>

There are other special types of financial assistance to municipal governments for investment expenditures. For example, under the Provincial Aid to Drainage Amendment Act, 1949,<sup>4</sup> the Ontario Government is authorized to assist municipal drainage projects by assuming 20 per cent of the cost if it exceeds \$5,000. The Ontario Municipal Improvement Corporation, established in 1950,<sup>5</sup> is authorized to purchase bonds of municipal projects under specified conditions. In Alberta the Self-Liquidating Projects Act of 1950<sup>6</sup> assists in the financing of certain types of project by providing advances to the municipalities. Loans are authorized by the Nova Scotia Government under the Municipal Loan and Building Fund Act of 1949<sup>7</sup> for a wide variety of

<sup>1</sup> British Columbia, Revised Statutes, 1948, Chap. 234.

<sup>2</sup> Quebec, 1946, Chap. 21.

<sup>3</sup> Nova Scotia Municipal Bureau, *Provincial-Municipal Relations in Other Provinces*, Supplement (Vol. III) to *The Reorganization of Provincial-Municipal Relations in Nova Scotia*, Halifax, Institute of Public Affairs, Dalhousie University, December 1949, passim.

<sup>4</sup> Ontario, 1949, Chap. 77.

<sup>5</sup> The Ontario Municipal Improvement Corporation Act, 1950; Ontario, 1950, Chap. 50.

<sup>6</sup> The Self-Liquidating Projects Act; Alberta, 1950, Chap. 67.

<sup>7</sup> Nova Scotia, 1949, Chap. 9.



types of construction, including waterworks, schools and municipal buildings. Notable provincial financial assistance is also frequently provided in emergencies to aid in the rebuilding and reconstruction of destroyed and damaged communities. Recent examples are the aid provided by the British Columbia government under the Flood Relief program of 1948<sup>1</sup> and by the Manitoba government under a similar program,<sup>2</sup> in the case of the Fraser and Red River floods respectively. The Province of Quebec provided financial assistance to aid in the rebuilding of two urban centres, Rimouski and Cabano, which were ravaged by fire in 1950.<sup>3</sup>

While provincial governments are the main source of financial assistance for municipal capital expenditures, the Federal Government has given aid to local investment projects both directly and indirectly. An example of direct assistance is the Municipal Investment Assistance Act, 1938.<sup>4</sup> By this measure the Federal Government was authorized to make loans to municipalities for the purpose of "constructing or making extensions or improvements to or renewals of a municipal waterworks system, a municipal gas plant, a municipal electric light system, or other municipal project," provided that such projects were of a self-liquidating nature. These loans carried a low interest rate, 2 per cent per annum, and were long-term loans, for a period not to exceed the estimated useful life of the project concerned.

From time to time, also, opportunities arise for municipal authorities to participate with Federal and provincial governments in local investment undertakings that confer immediate and direct benefits. Examples of indirect assistance by the Federal Government are the housing loans made between 1919 and 1924 under the Emergency Powers Act of 1914 to provincial governments, which in turn made these funds available to cities and towns for the building of municipally owned and operated housing projects.<sup>5</sup> The Federal Government also contributed to both provincial and municipal relief works, particularly in the thirties (see Appendix C), and made grants to municipally owned emergency shelter projects in the post-World War II period, when the housing shortage was particularly acute.<sup>6</sup>

These types of provincial and Federal Government financial assistance have helped to increase municipal capital and repair expenditures. Municipalities in turn have contributed and continue to contribute to and participate in other types of government investment, and to encourage private investment. There are numerous instances in which either two or three levels of government joined in sponsoring and financing capital projects. For example, under the Marshlands

Reclamation Program<sup>7</sup> the Federal Government provides the major protective works and the provincial and local authorities are responsible for drainage of the backland. The local authorities involved are associations of land owners incorporated as "Marsh Bodies". River development work has led frequently to joint government undertakings, for example, in the building of the Shand Dam on the Grand River, constructed between 1939 and 1942. The costs of this project were shared 25 per cent by municipalities concerned and 37.5 per cent each by the provincial government of Ontario and the Federal Government. A more recent example is the Fanshaw Dam, a flood control project on the Thames River, where a local conservation authority, the provincial and Federal governments contribute to the construction costs of the project in the same proportion as in the preceding example.<sup>8</sup>

During World War II and in the immediate post-war period municipal governments participated in Federal Government wartime and veterans' housing projects either by foregoing part of the property tax that would otherwise have been payable or by making land and services available up to a certain agreed limit.<sup>9</sup> Municipal contributions to grade crossing projects sponsored by the Federal Board of Transport Commissioners<sup>10</sup> are quite frequent, with the municipal share varying between one-quarter and one-half of capital costs. More recently the newly embodied provisions of Section 35 of the National Housing Act, 1944<sup>11</sup> provide for municipal participation in joint Federal-provincial housing and community development projects and land assembly for residential use.

Some municipalities have encouraged private investment by making plant facilities available to private business on a rental or purchase plan, while others have attempted to attract private investment of an industrial, commercial or residential type by making land available at nominal prices or by offering reduced property taxes for lengthy periods of time.

This description of the various ways in which municipal governments and other organized units finance, carry out, participate in or encourage local works illustrates the complexity of the investment situation on a city, town or rural community level. There is, however, an important offsetting factor to this diversity of administrative arrangements and the inherent limitations on the size of local investment undertakings. Of the three levels of government, municipal authorities are closest to the scene of operations. Thus they are in a good position to judge the merits and the economic impact of both private and public investment projects.

<sup>1</sup> British Columbia, Order in Council No. 2106.

<sup>2</sup> Manitoba, 1950, Chaps. 1-3.

<sup>3</sup> Quebec, 1950-1951, Chaps. 5-8.

<sup>4</sup> 2 George VI, Chap. 33.

<sup>5</sup> *Residential Real Estate in Canada*, pp. 117 and 480.

<sup>6</sup> *Ibid.*, p. 498.

<sup>7</sup> Maritime Marshland Rehabilitation Act, 11-12 George VI, Chap. 61 (1948).

<sup>8</sup> Cf. *Federal Government Estimates for the Fiscal Year Ending March 31, 1952*, Department of Resources and Development, Vote 401; also *Report to the Ontario Legislature from the Select Committee on Conservation*, Toronto, 1950, pp. 81-90 and 157-162.

<sup>9</sup> *Housing in Canada, October 1947*, pp. 10-11.

<sup>10</sup> Railway Act, 1919, Revised Statutes of Canada, 1927, Chap. 170.

<sup>11</sup> See p. 110.



If this point is borne in mind it appears that the role played by municipal corporations and other local bodies in influencing the course of both private and public investment goes considerably beyond the direct investment and repair and maintenance expenditures they make.

### Investment by Local Authorities

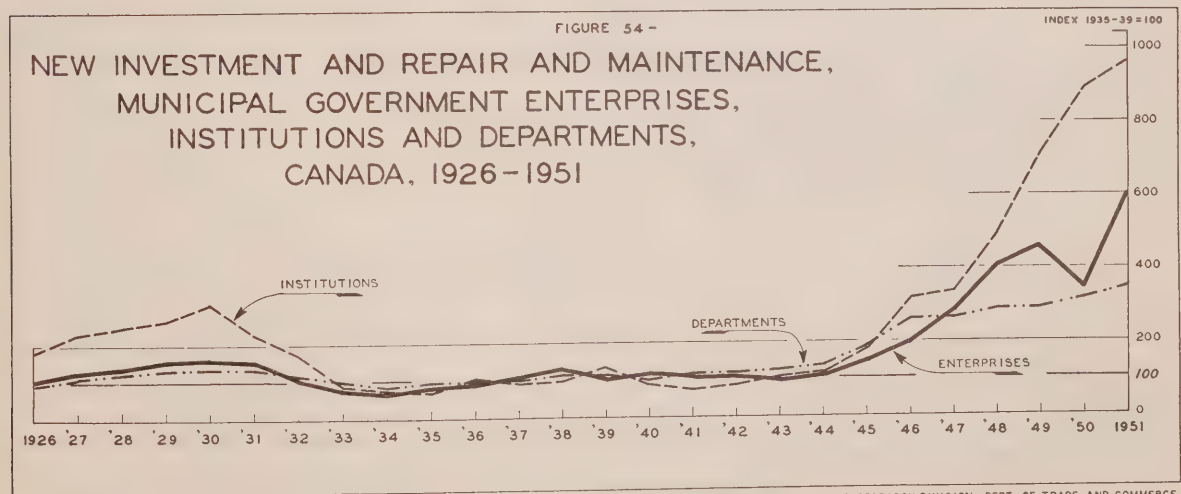
The more than 4,000 urban and rural municipalities and other organized units in existence in Canada spent about \$271 million on the expansion and improvement of public facilities in 1950. This is about 27 per cent of total public new investment and 7 per cent of total private and public new investment undertaken in that year. An additional \$80 million was spent on maintenance and repair of urban and rural capital facilities, making a total investment outlay of \$351 million. This expenditure approximates the ordinary pre-war peacetime budget of the Federal Government.

Investment and repair and maintenance expenditures were made through three types of municipal agencies: (a) municipal enterprises, mainly utility corporations, e.g., electric railways, bus systems, electricity, gas and telephone systems, and waterworks; (b) municipal institutions, particularly hospitals, schools and libraries;

and (c) municipal government departments for such undertakings as public buildings, streets, roads, sidewalks, sewage and garbage disposal, street lighting, etc. The term "municipality" used in this section covers a broad group of both incorporated and unincorporated local bodies. The definition includes not only cities, towns, villages, counties and other organized rural districts, but also the various school districts and boards and local special arrangement groups such as conservation authorities, improvement and drainage districts, and various metropolitan organizations, e.g., The Montreal Metropolitan Commission, The Greater Winnipeg Sanitary District, The Greater Winnipeg Water District, The Vancouver and District Joint Sewage and Drainage Board, and The Greater Vancouver Water District.

Of the three different types of municipal agencies, government departments are the most important in investment outlay. In 1950 they contributed 42 per cent of the municipal total, followed by locally operated institutions, 38 per cent, and municipally owned enterprises, 20 per cent. Before the war, particularly in the thirties, departmental spending on investment projects was proportionately greater, mainly because of large expenditures on relief works (see below).

Municipal Agency	New Investment					
	1930		1937		1950	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Enterprises.....	21.8	23	12.0	26	54.1	20
Institutions.....	36.4	38	9.2	20	103.9	38
Departments.....	37.5	39	25.7	54	112.5	42
Total.....	95.7	100	46.9	100	270.5	100



Capital expenditures by municipally operated institutions have fluctuated more substantially than corresponding outlay by government-owned enterprises or by municipal government departments (see Figure 54). One of the reasons for this appears to be the possibility of postponing capital expenditures on hospitals and school buildings more readily than on some other undertakings such as the improvement of streets, sidewalks,

street lighting, or local utility projects like waterworks and hydro. In a period of expansion such as followed the end of World War II, investment by municipal institutions, particularly hospitals and schools, rises very rapidly; more rapidly in fact than similar outlay by municipally owned enterprises and government departments, because of the great need to expand capital facilities in the institutional sector (see below).

Municipal Agency	New Investment—Per cent Change				
	1926-1930	1930-1933	1933-1938	1938-1939	1939-1950
Enterprises.....	+ 80	— 65	+120	— 29	+358
Institutions.....	+ 77	— 77	+ 8	+ 51	+658
Departments.....	+ 50	— 33	+ 11	— 6	+326
Total.....	+ 66	— 57	+ 30	— 4	+421

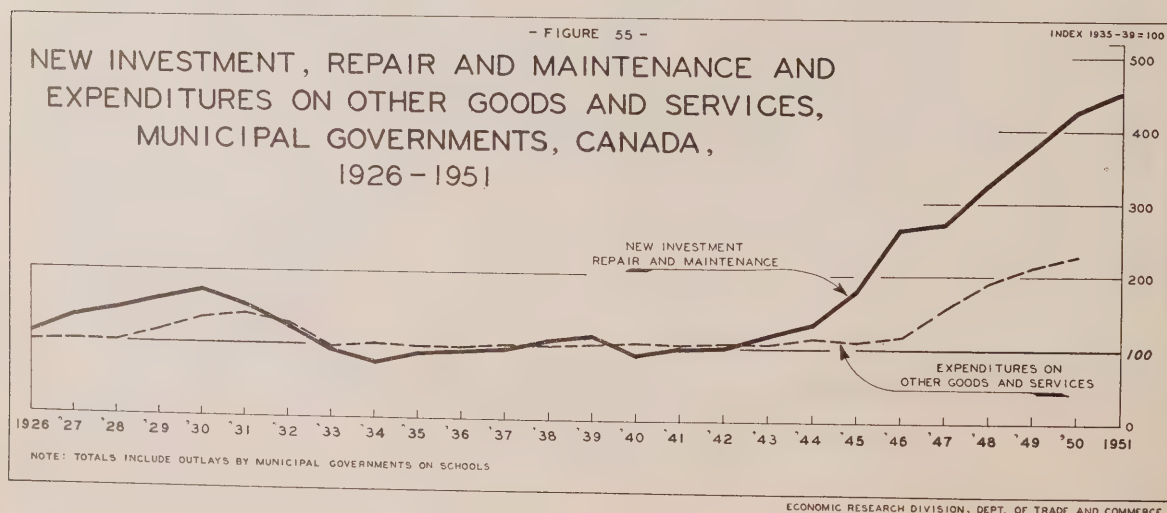
Investment by municipalities has usually lagged about one year behind the expansion or contraction of capital expenditures by business groups or agencies of other governments. Peaks of total private and public investment were recorded in the inter-war period in 1929 and 1937 and low points in 1933 and 1938. High points of municipal investment occurred in 1930 and 1938, and a low point was reached in 1934. After 1938 municipal investment declined, with a low recorded in 1941. There was little change in municipal investment activity during the war. Since the end of World War II municipal capital expenditures have been rising rapidly, reaching by 1950 a level four times that of 1945 in value terms and about double in volume terms (see Table 108).

### Investment and Total Municipal Expenditures

Current new investment by municipal government departments comprises over one-quarter of total expenditures on goods and services. If repair and maintenance

outlay on municipal capital facilities is added the proportion is over one-third. The ratios differ only slightly if the comparison is made in terms of investment and total municipal expenditures on both current and capital account. In considering the figures shown below it should be borne in mind that the investment data have been adjusted to include expenditures on municipal schools so as to correspond as closely as possible with total municipal expenditures.

Investment outlay has become more important in municipal budgets since World War II than was the case in the pre-war period. This development is in line with the great emphasis placed by local governments in recent years on the expansion of municipal facilities to keep abreast of the rapid rate of urbanization and the growth of suburban communities, and on the need for improving capital facilities in rural areas (see Figure 55).



The phenomenal rate of urbanization in the last decade is indicated by the fact that the population of 24 major cities with 30,000 or more inhabitants rose by 28 per cent between 1941 and 1950, varying from less

than 10 per cent for Kingston and Saint John to close to 60 per cent for Greater Vancouver and Edmonton. The population for the rest of Canada rose by only 13 per cent in the same period (see below).

City and Area	Population—Thous.		Per cent Increase
	1941 <sup>1</sup>	1950 <sup>2</sup>	
<i>Metropolitan Areas</i>			
Halifax.....	91.8	134.2	46
Hamilton.....	187.4	217.0	16
London.....	97.2	118.3	22
Montreal.....	1,139.9	1,504.8	32
Ottawa.....	223.3	257.7	15
Quebec.....	200.8	269.9	34
Saint John.....	67.2	71.6	7
Toronto.....	909.9	1,063.5	17
Vancouver.....	351.5	558.4	59
Victoria.....	77.6	109.0	40
Windsor.....	124.6	158.9	28
Winnipeg.....	290.5	338.3	16
Sub-total.....	3,761.7	4,801.6	28
<i>Other Major Cities</i>			
Brantford.....	31.9	36.5	14
Calgary.....	88.9	112.2	26
Edmonton.....	93.8	148.9	59
Fort William.....	30.6	34.4	12
Kingston.....	30.1	32.9	9
Kitchener.....	35.7	43.1	21
Regina.....	58.2	72.0	24
St. Catharines.....	30.3	37.4	23
Saskatoon.....	43.0	54.0	26
Sherbrooke.....	36.0	51.0	42
Sudbury.....	32.2	47.1	46
Three Rivers.....	42.0	51.0	21
Sub-total.....	552.7	720.5	30
Twenty-four Major Cities.....	4,314.4	5,522.1	28
Other Areas.....	7,192.3	8,114.9	13
Canada <sup>3</sup> .....	11,506.7	13,637.0	19

<sup>1</sup> Mid-year; city boundaries adjusted to conform to boundaries used in 1950.

<sup>2</sup> End of year.

<sup>3</sup> Excluding Newfoundland.

Expenditures on construction and machinery and equipment have risen proportionately more rapidly than operating expenditures of municipal governments and outlays on such municipal services as police and fire protection, welfare functions, snow removal, etc. This is indicated by the fact that in the pre-war peak of 1930

only 18 per cent of total municipal expenditures on goods and services went into new investment, while in 1950 the ratio was up to 28 per cent. In 1937, when direct aid for relief purposes was substantial, the ratio was as low as 12 per cent (see below).



Year	New Investment by Government Departments <sup>1</sup>			New Investment and Repair and Maintenance by Government Departments <sup>1</sup>		
	\$ Mill.	Per cent of Total Municipal Expenditures on Goods and Services	Per cent of Total Municipal Expenditures on Capital and Current Account	\$ Mill.	Per cent of Total Municipal Expenditures on Goods and Services	Per cent of Total Municipal Expenditures on Capital and Current Account
1926.....	44.7	16	17	72.8	26	28
1930.....	72.6	18	23	111.3	28	36
1937.....	34.0	12	11	63.0	23	21
1948.....	152.0	25	28	211.8	34	39
1950.....	210.8	28	32	275.6	36	42

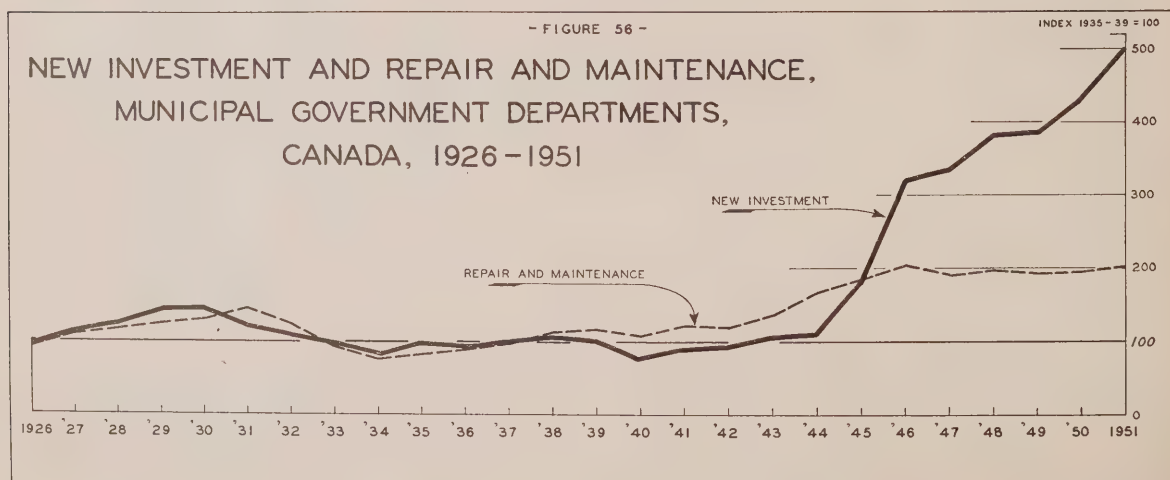
<sup>1</sup> Including expenditures on municipal schools.

### New Investment and Repair and Maintenance

New investment by municipal government departments in the post-war period was about double the expenditures on repair and maintenance of capital facilities. As in other fields, repair and maintenance expenditures by municipal government departments have fluctuated much less than capital outlay (see Figure 56). In fact, if allowance is made for cost increases between 1939

and 1950, little expansion of repair and maintenance outlay in volume terms is indicated. Since municipal capital facilities have been expanding notably, particularly in the last five years, this suggests that municipalities may not be keeping up fully, as far as repair and maintenance is concerned, with the expansion of capital equipment. Another possible explanation is that perhaps repair and maintenance expenditures are not as fully reported in the post-war period (see below).

Type of Expenditure	Municipal Government Departments— Per cent Change				
	1926-1930	1930-1933	1933-1938	1938-1939	1939-1950
New Investment.....	+ 50	- 33	+ 11	- 6	+326
Repair and Maintenance.....	+ 38	- 28	+ 19	+ 4	+ 69
Total.....	+ 44	- 30	+ 15	- 1	+186



### Investment Expenditures by Type

About three-quarters of total investment outlay by municipal government departments is usually devoted to public construction work and repairs to structures, and the remaining one-quarter to the purchase and maintenance of machinery and equipment. This ratio

has changed little over the years (see below). The type of machinery and equipment purchased by municipal governments covers a great variety of items, including fire-fighting equipment, street-cleaning and snow removal equipment, certain types of construction machinery, motor vehicles for police and for civic officials, and smaller items such as office machinery and furniture.

Type of Expenditure	Municipal Government Departments					
	1930		1937		1948	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Public Works <sup>1</sup> .....	62.4	78	44.6	78	131.1	79
Machinery and Equipment.....	17.7	22	12.8	22	35.5	21
Total New Investment and Repair and Maintenance <sup>2</sup> .....	80.1	100	57.4	100	166.6	100

<sup>1</sup> The phrase "Public Works" is used to denote both construction and planning and supervisory outlay associated with the execution of public works.

<sup>2</sup> Total includes certain duplications of such items as construction machinery which appear both under public works and under machinery and equipment.

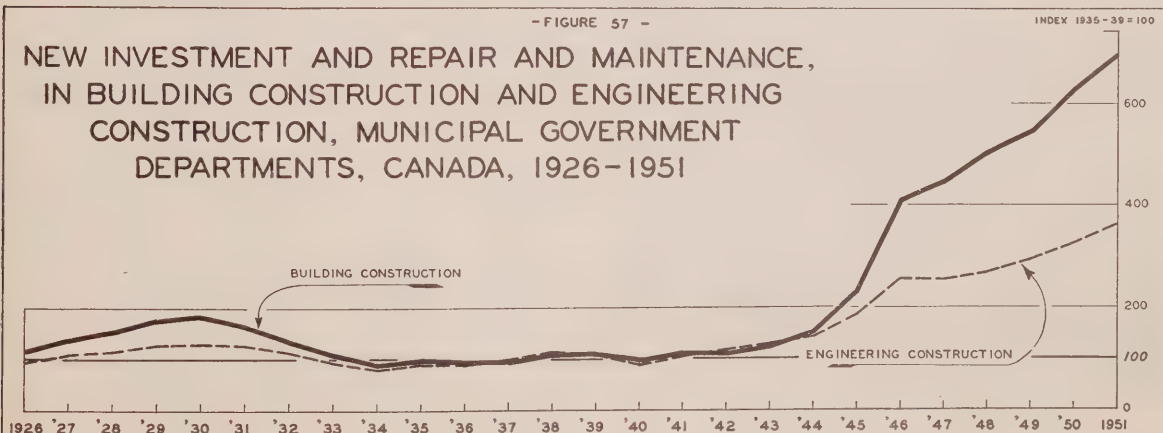
The bulk of construction expenditures is made on engineering types of projects, e.g., streets, roads, bridges, culverts, etc. Only a small proportion, usually 10 to

17 per cent, represents expenditures for buildings such as fire stations, police buildings, and courthouses (see below and also Figure 57).

Type of Construction	New and Repair and Maintenance Construction—Municipal Government Departments					
	1930		1937		1950	
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent
Building.....	7.5	14	3.9	10	25.0	17
Engineering.....	47.5	86	35.4	90	118.8	83
Total.....	55.0	100	39.3	100	143.8	100

- FIGURE 57 -

### NEW INVESTMENT AND REPAIR AND MAINTENANCE, IN BUILDING CONSTRUCTION AND ENGINEERING CONSTRUCTION, MUNICIPAL GOVERNMENT DEPARTMENTS, CANADA, 1926-1951



## Municipal Investment Expenditures by Province

In considering municipal investment expenditures on a regional basis the different degrees of municipal organization and the varying arrangements of cost-sharing between provincial and municipal governments should be borne in mind. This factor explains in part the great variations in per capita expenditures on municipal investment indicated for the different provinces. There are of course many other reasons. For example, some provinces are highly industrialized and contain large aggregations of urban population. Other provinces are more rural in character, with a lesser population density. There are also differences in financial resources, taxing and borrowing powers among the various municipalities. Finally, standards of capital facilities required by local groups may vary significantly, depending on such factors as mobility and composition of the population, economic opportunities in the community, and type and effectiveness of local administration.

In the post-war period the varying rates of municipal investment from province to province are probably the result of short-run influences. In 1950 the highest per capita outlays for municipal investment were made in Alberta and British Columbia, provinces which had seen a rapid increase in urban population in the post-war period. The high per capita rate in Saskatchewan reflects working off the backlog of projects which had accumulated through the thirties. In 1937, when different short-run influences were at work, Ontario was the leading province, followed by Manitoba, British Columbia and Alberta (see below).

Between 1937 and 1950 new investment and repair and maintenance expenditures by all municipal governments and organized units in Canada rose by 218 per cent. In Alberta, where oil development gave impetus to expansion of municipal capital facilities in the post-war years, investment expenditures by the end of this period had risen by seven times over the 1937 value. In Saskatchewan, where municipal outlay had been at quite low

Province	Per Capita New Investment and Repair and Maintenance—Government Departments—Dollars	
	1937	1950
Newfoundland.....	—	0.85
Prince Edward Island.....	3.12	1.15
Nova Scotia.....	3.10	3.19
New Brunswick.....	1.60	5.36
Quebec.....	3.72	7.80
Ontario.....	6.87	14.74
Manitoba.....	5.31	9.69
Saskatchewan.....	1.95	13.16
Alberta.....	4.12	29.39
British Columbia.....	5.14	15.38
All Provinces.....	4.72	12.00 <sup>1</sup>

<sup>1</sup> Per capita figure for all provinces excluding Newfoundland is \$12.29.

levels in 1937, the increase was more than five-fold. Other provinces in which the rise was above the average for all regions include British Columbia and New Brunswick. Only in Prince Edward Island where, as stated earlier, municipal organization is not widespread, is a decline of municipal investment indicated (see below).

## Detailed Information on Municipal Public Investment

More detailed information on municipal government new investment, repair and maintenance expenditures, by type of expenditures, for the years 1926 to 1951 will be found in Tables 108 to 115 in Part II.

Province	New Investment and Repair and Maintenance—Government Departments						
	1933		1937		1950		Per cent Change 1937-1950
	\$ Mill.	Per cent	\$ Mill.	Per cent	\$ Mill.	Per cent	
Newfoundland.....	—	—	—	—	0.3	0.2	—
Prince Edward Island.....	0.1	0.2	0.3	0.6	0.1	0.1	— 67
Nova Scotia.....	1.2	2.4	1.7	3.3	2.1	1.3	+ 24
New Brunswick.....	0.5	1.0	0.7	1.3	2.8	1.7	+300
Quebec.....	11.5	22.6	11.7	22.5	31.0	18.7	+165
Ontario.....	28.3	55.7	25.0	48.0	66.5	40.1	+166
Manitoba.....	1.6	3.1	3.8	7.3	7.7	4.6	+103
Saskatchewan.....	1.7	3.3	1.8	3.4	11.5	6.9	+539
Alberta.....	4.5	8.9	3.2	6.1	26.3	15.9	+722
British Columbia.....	1.4	2.8	3.9	7.5	17.5	10.5	+349
All Provinces.....	50.8	100.0	52.1	100.0	165.8	100.0	+218



## SECTION 10. INVESTMENT ON A REGIONAL BASIS

The regional distribution of capital expenditures in Canada has been governed by a great number of factors common in many respects to both private and public investment outlay. Private capital expenditures have been closely related to the stage of economic advancement and the distribution and growth of Canada's population, the area and physiography of the country, and the type and distribution of natural resources. In addition to these physical factors, the extent of private capital outlays has been influenced by continuous endeavours to make the most effective use of available resources through extending the scale of domestic processing and increasing the degree of advanced fabrication. There has also been extensive private investment in creating the supplementary facilities in commerce, finance and services required by an industrialized nation.

Supplementing private investment, governments have made substantial capital expenditures in their efforts to strengthen and facilitate economic development of the different regions which make up Canada. They have also been concerned with the improvement and expansion of public facilities to meet the growing demands for services by citizens in every part of the country. In making these expenditures Federal, provincial and municipal governments were guided not only by many of the factors mentioned above as being pertinent to private investment, but also by such considerations as the constitutional division of administrative responsibilities and the varying financial strength of the authorities involved.

The principal factors which affect the regional distribution, composition and dimensions of capital expenditures might be summarized as follows:

(a) *General Economic Conditions.* Past experience shows that a close relationship exists between prosperous economic conditions in the country and a high level of investment activity. Thriving regions and communities usually have a high level of capital expenditures on industrial plants, commercial buildings, transportation, resources development, housing, and educational, health and recreational facilities.

(b) *Population Growth and Distribution.* Substantial increases in population over short periods of time, when concentrated in certain areas, often render existing capital facilities inadequate. A widely scattered population makes extensive rail, road, water and air transportation facilities necessary. Adequate transportation and communication systems are essential requirements for the growth of the various Canadian regions.

(c) *Area and Physiography.* The wide expanse of Canada, her numerous rivers, long shore lines and large tracts of unexplored land, particularly in the north, make economic development dependent on extensive private and public capital outlay. Large rivers may call for the construction of dams, dykes, canal systems and bridges. Electric power can be generated in large quantities only by building expensive hydro generating

plants. Location on the sea shore necessitates harbour and military installations. Large storage and warehousing facilities have to be built to cope with the growing flow of trade, particularly with respect to items which Canada is exporting in large quantities, e.g., wheat. Drought areas, especially in the Prairie region, necessitate comprehensive irrigation projects and involve extensive maintenance work. Marshes in the Maritimes lead to reclamation work. Unexplored areas require surveys and mapping.

(d) *Natural Resources.* Canadian prosperity relies in no small measure on a combination of abundant natural resources (agricultural land, fisheries, mining) and plentiful water power that can be developed cheaply. Such resources are available in large quantities in Canada but their regional distribution is uneven. Their development requires substantial capital outlay. In many sectors such development is deferred until both domestic and foreign demands are large enough to permit economic use of available resources. Further, as these resources are being used up the fact that many of them are not inexhaustible necessitates a great deal of capital outlay for conservation and developmental work in order to avoid too rapid depletion.

(e) *Industrial and Commercial Development.* Location of resources and markets in turn leads to great variations in the regional distribution of industry and commerce in Canada, with the major concentration to be found in the central part of the country, in Ontario and Quebec. But in more recent years British Columbia has made great strides in industrial development. With new resources discoveries, particularly oil, natural gas and ores, the Prairie region has undergone further industrial diversification. Finally, after a lengthy period of little change, the Maritimes have been able to consolidate many industrial gains made during World War II and have experienced a notable growth in more recent years.

(f) *Expansion of Housing and Community Facilities.* A stepped-up rate of urbanization experienced in most parts of the country, but particularly concentrated around metropolitan centres, and increased internal migration have made it necessary to expand substantially the stock of housing and institutional and other community facilities. This was particularly the case in communities whose population growth has been most rapid.

The weight and the importance of these numerous factors in contributing to particular levels of private and public investment at different times have varied greatly among the five major economic regions of Canada.<sup>1</sup> Some of the salient features of the rate and type of economic development that has taken place in recent decades in these regions, the effect this has had on investment, and the impact on incomes and living standards are reviewed briefly in this section. Although the emphasis is mainly on regional development the section concludes with a short reference to investment activity on a city basis.

<sup>1</sup> The Maritimes, Quebec, Ontario, the Prairies and British Columbia.

## Maritime Region

The Maritime region, comprising four provinces bordering on the Atlantic Ocean, Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland, possesses the essential ingredients of an industrial economy. The region has coal and iron, together with non-ferrous metals, timber and hydro power in some measure, and considerable agricultural and fisheries wealth. Natural resources, while perhaps not available in such variety as in other Canadian regions, are plentiful in a number of fields, facilitating and contributing to industrial development of the region. The location of the four Maritime provinces has proven to have certain advantages, for it has attracted industries which must locate close to the sea or which engage in the processing of raw materials that enter Canada through her eastern gateway.

In raw materials the Maritimes lead Canadian production of barite (98 per cent), fluorspar (93 per cent), gypsum (89 per cent), and silica brick (65 per cent). The region is second in the production of coal (37 per cent), iron ore (33 per cent) and lead (11 per cent).<sup>1</sup>

The Maritimes are Canada's most important fish producing region, contributing about 53 per cent of the value of total catch in the sea fisheries. In recent years there has been a marked trend in the industry towards a higher degree of processing and the application of modern research results and production techniques. This in turn has strengthened greatly the competitive character of the industry and contributed to a rise in the quality of fish products.

In agriculture the region is first in the production of potatoes and customarily is second only to British Columbia in apple growing.

In the manufacturing and processing field the Maritimes are the leading producers in the fish canning and packing industry, with 58 per cent of employment in this industry in Canada at mid-1951. In primary iron and steel production, with 17 per cent of the industry's total employment, this region is surpassed only by Ontario. In shipbuilding (26 per cent) and pulp and paper (12 per cent) the Maritime provinces rank third among the regions of Canada. Also of importance are the lumber industry (9 per cent) and the railway rolling stock industry (9 per cent).<sup>2</sup>

The post-war period has seen a concentration on resources development in these provinces. In Cape Breton lead and zinc deposits are being rapidly developed, and millions are being spent on modernizing the coal mines. Large sums have gone towards developing iron ore deposits in Labrador and expanding mining operations at Bell Island in Newfoundland. There have also been notable increases in electric power capacity in the Maritime region. Important power developments include steam plants at Halifax and Trenton in Nova Scotia and hydro plants at Grand Lake, Chatham and on the Tobique River in New Brunswick.

Manufacturing growth in the region has been led by expansion of steel making and pulp and paper capacity. Major developmental projects in the steel industry have involved expenditures in excess of \$10 million. At least two pulp and paper companies have completed expansion programs each exceeding \$5 million. Modernization of the fish processing industry has been led by the construction of a \$5 million plant in Nova Scotia. The increasing diversity of manufacturing in the provinces is illustrated by the erection of a cement plant in New Brunswick costing over \$5 million and an establishment to assemble automatic washing machines and refrigerators in Nova Scotia. In Newfoundland several new industries are in the process of being established and they cover such fields as cement, gypsum wallboard, leather and fish skin tanning and leather goods, cotton textiles and fur dressing and dyeing.

The capital expenditure pattern of the Maritimes reflects fairly closely the general economic development of the region. Industrial growth in the Maritimes was particularly marked during the war years, notably in such industries as shipbuilding.

During the post-war years it was possible to consolidate a number of the economic advances made during the war and to expand and diversify further the industrial structure of the region. As a result population, which had changed very little in the inter-war period, rose notably in the last decade, as the data below indicate. Similarly, with employment opportunities more plentiful there has been a significant increase in the number of persons employed. This in turn has enabled the Maritimes to retain many of their native-born workers who might otherwise have moved to the central or western parts of Canada or to the United States.

Year	Maritimes—Thous.	
	Population	Civilian Employment
1921.....	1,264	398
1931.....	1,291	403
1939.....	1,405	441
1950.....	1,631	522
Per cent Increase 1921-1950—		
Maritimes.....	29	31
Canada.....	53	67

The preponderance of primary industries in the Maritime economy and the employment opportunities associated with their development are indicated by the data shown below. As of mid-1950 about every third person working in the Maritimes was employed in primary industries, including agriculture, fishing, mining and woods operations.

<sup>1</sup> These data relate to the volume of production in 1950.

<sup>2</sup> All percentages in this paragraph refer to employment for June 1951.



Item	1950	
	Maritimes	Canada
Total Civilian Labour Force—Thous..	562	5,233
Unemployment—Thous.....	40	150
Civilian Employment—Thous.....	522	5,083
Per cent of Civilian Employment—		
Agriculture.....	18	21
Other Primary Industries.....	15	4
Manufacturing.....	14	26
Other.....	53	49

Although primary industry is the largest sector of the Maritime economy, the manufacturing operations carried on in this region are of particular importance because they cater to the specialized needs of local markets. In so doing they enjoy the advantages of low transportation costs and short delivery periods, which enable sellers to operate with smaller inventories than would be required if a great variety of products coming from more distant places had to be kept in stock. Manufacturing industries in the Maritimes have grown by leaps and bounds in the recent decade. There are now one-third more plants in the region than there were before the war and about two-thirds more people are employed in manufacturing establishments (see below). In addition Maritime manufacturing firms are turning out many products which they did not produce before the war, from aircraft parts to washing machines, and from bowling pins and cutlery to electronic devices.

Year	Maritimes			
	Number of Establishments Thous.	Number of Employees Thous.	Gross Value of Production—\$ Mill.	
			Current Dollars	Constant Dollars
1939.....	2.5	38	178	178
1950.....	3.3	61	633	314
Per cent Increase 1939-1950—				
Maritimes.....	32	61	256	76
Canada.....	40	77	299	97

In the first five post-war years 66 new companies commenced manufacturing operations in the Maritimes, each employing 10 or more people and providing, in total, over 2,200 additional jobs (see below). Industrial development in Newfoundland has become a particularly important factor since 1949 and a number of new firms have either been established or are in the process of being established, as indicated by the examples referred to earlier.

Item	Number of New Companies	Employment in 1950
Number in Maritimes.....	66	2,221
Per cent of Canadian Total.....	6	5

In addition to large manufacturing enterprises a number of small industries and businesses were established in the post-war period. As a result the number of incorporated companies in the Maritimes rose notably. Companies in this region reporting to the Department of National Revenue rose by over one-third from some 1,800 in 1945 to about 2,500 by 1949. Because of the large number of new entrants into business the number of companies reporting losses increased as well as the number of companies making profits (see below). Profits by the latter group of companies rose in total by 42 per cent between 1945 and 1949, only moderately below the Canadian national average.

Item	Maritimes <sup>1</sup>	
	1945	1949
Number of Companies—		
Reporting Profits.....	1,528	1,770
Reporting Losses.....	292	759
Total.....	1,820	2,529
Amounts of Profit Companies—		
Profits—\$ Mill.....	45	64
Assets—\$ Mill.....	733	1,148
Profits of Profit Companies as Per cent of Assets.....	6.1	5.6
Per cent Change for Profit Companies, 1945-1949—		
Profits—Maritimes <sup>1</sup> .....	+42	
—Canada.....	+56	
Profits as Per cent of Assets—Maritimes.....	- 8	
—Canada....	+16	

<sup>1</sup> Excluding Newfoundland.

Associated with the industrial expansion and greater use of indigenous natural resources, manufacturing investment rose significantly in the post-war period, as the data below show. In 1948 capital expenditure made by manufacturing industries reached a high point of \$28 million, or three times what it had been in 1945. Examples illustrating the diversity of capital undertakings include multi-million dollar outlays for pulp and paper and steel mills, a \$300,000 expenditure on a planing mill, an outlay of \$100,000 for a meat packing plant, expenditures of up to \$200,000 on mills producing woollen and cotton yarns, a similar amount on a sugar refinery and equally significant amounts on such projects as a box factory, a fish processing plant, a biscuit factory and a foundry.



Year	Manufacturing Investment— Maritimes <sup>1</sup>	
	Current Dollars Mill.	Constant Dollars Mill.
1945.....	9.9	7.0
1948.....	27.8	14.3
1950.....	15.9	7.6
Per cent Increase 1945-1950— Maritimes <sup>1</sup> .....	61	9
Canada.....	85	22

<sup>1</sup> Excluding Newfoundland.

By 1950 capital expenditures in manufacturing had declined somewhat but in the following year they were on the rise again, in line with increased demand on Canadian industries for defence and defence-supporting materials and commodities. In 1950, however, utility expansion, particularly in central electric stations, was the most important single factor in business expansion, contributing 16 per cent to total capital expenditures in the Maritimes (see below). The so-called "other" business sector mentioned below includes primary industries (excluding agriculture) and the construction industry, 10 per cent, and trade, finance and service industries, 7 per cent.

Type of Investment	1950—Per cent	
	Maritimes	Canada
Manufacturing.....	7.6	13.6
Utilities.....	16.2	19.5
Agriculture.....	5.3	11.0
Other Business.....	17.2	15.9
Total Business.....	46.3	60.0
Institutions.....	8.3	5.5
Housing.....	20.9	22.1
Governments.....	24.5	12.4
Total.....	100.0	100.0

As a result of industrial development and increased economic opportunities incomes in the Maritime region have risen notably. This is indicated by the fact that personal income per capita rose from an average of \$267 in 1939 to about \$650 in 1950. This is an increase of more than 140 per cent in current dollars. If allowance is made for changes in the price level the increase is about 48 per cent. Again the rise is close to the Canadian national average, which is 54 per cent (see below). Since savings habits in 1950 were only moderately

different from those prevailing in 1939<sup>1</sup> this meant that consumer spending per capita in real terms had risen by approximately the same proportion as incomes, reflecting an improvement in living standards.

Item	1939	1950
Personal Income—\$ Mill.....	294	1,060
Personal Income per Capita—\$.....	267	650
Per cent Increase 1939-1950 of Personal Income per Capita— Maritimes—Current Dollars.....		143
—Constant Dollars.....		48
Canada —Current Dollars.....		153
—Constant Dollars.....		54

While there has been little change in the number of hours worked in primary industries, particularly agriculture and fishing, a decided improvement in this respect took place in most secondary industries. In manufacturing, for example, average hours worked per week declined from 50 in 1939 to about 44 in 1950, a reduction of 12 per cent. Even though the number of working hours declined, total earnings of individual workers increased notably. The average hourly wage for manufacturing rose from 34 cents in 1939 to 92 cents in 1950, an increase of 171 per cent in current dollars, or 71 per cent in constant (1939) dollars. Increased wage payments in real terms were made possible as a result of a rise in productivity. The average worker in manufacturing in the Maritimes is estimated to have produced \$4,700 worth of goods in 1939 and about \$10,200 worth in 1950. This is an increase of 117 per cent in current dollar terms and about 9 per cent in real terms. But if account is taken of the fact that employees worked fewer hours per week in 1950 than in 1939, the real increase in output per man-hour in manufacturing was about 24 per cent over the intervening 11-year period, or an annual average rate of a little over 2 per cent.

### Quebec

The economy of Quebec, Canada's second most populous province, is more diversified than that of any other region in the country except Ontario. The province draws its economic strength from extensive mineral, forest and water resources which have led to the development of large processing and advanced manufacturing industries. This region is presently the sole producer in Canada of a number of metals and metallic ores, e.g., aluminum, ilmenite, molybdenite and iron oxide, and of industrial products, e.g., window glass,<sup>2</sup> special plastic materials and chemicals such as butyl alcohol and acetone.

Quebec is Canada's leading producer of asbestos (99 per cent of Canada's total production<sup>3</sup>), feldspar (84 per cent), tellurium (65 per cent), mica (58 per cent),

<sup>1</sup> Personal savings are estimated to represent 6 per cent of personal income in 1939 and 5 per cent in 1950.

<sup>2</sup> Present plans call for the opening by the end of 1951 of another window glass manufacturing plant in Toronto.

<sup>3</sup> Based on production reports for the year 1950.

electric energy (54 per cent), newsprint (52 per cent), sulphur and selenium (each 49 per cent), and cement (41 per cent). Further, the province of Quebec is the second largest producer in Canada of lime, (34 per cent), sand and gravel (30 per cent), zinc (27 per cent), copper (28 per cent), gold (25 per cent), silver (20 per cent), and sawn lumber (16 per cent). Large quantities of newsprint and metals are sold abroad. The development of these two industries is a part of the increased processing that is being undertaken in the province. Quebec's agriculture also contributes significantly to the provincial economy, yielding dairy products and livestock in excess of regional needs which are sold both in other parts of Canada and abroad. In 1950, for example, income originating in agriculture in the province of Quebec amounted to \$275 million, or 8 per cent of the \$3.5 billion total contributed by the region to the national income.

In the field of advanced manufacturing, besides being the sole producer of some items, Quebec has become a leading producer in a number of capital goods and consumer goods fields. Among the heavy engineering industries Quebec's manufacturers are in the forefront<sup>1</sup> in railway rolling stock (40 per cent) and shipbuilding and repairs (28 per cent). Also of major importance in the province are aircraft production (43 per cent), the widely diversified chemical industries (40 per cent) and electrical apparatus and supplies industries (26 per cent),<sup>2</sup> whose operations are exceeded only by similar industries in Ontario.

In the consumer goods field, producers in Quebec are leading in tobacco products (87 per cent), boots and shoes (59 per cent), textiles (58 per cent) and clothing (57 per cent). Most of these manufactured articles are being sold in the national market as well as in the province itself.

Among the factors contributing to the extensive economic growth of the province in the post-war period and leading to substantial capital expenditures on resources and industrial development are: (1) An abundance of resources, fortified by large new discoveries and developments in recent years, e.g., new deposits of iron ore on the Labrador border and in the Ungava Bay area, of ilmenite (from which iron and titanium are obtained) at Allard Lake, of copper in the Gaspé Peninsula, of copper-zinc ores at Chibougamau in north-western Quebec, and of pyrites suitable for the extraction of sulphur in the Noranda area in Northern Quebec. (2) Significant new hydro developments already in operation or still under development, e.g., an extension of the Beauharnois project, and new undertakings on the Peribonka, at LaTrenche Rapids and many others. These developments are undertaken in part to expand aluminium production in the province by something like four-fifths, and in part to provide more power for industrial and domestic consumption. (3) Continuing rapid population growth concentrating mainly in urban centres. Greater Montreal, Canada's largest and most

commercialized metropolitan city, now has a population of about 1.5 million, exceeding that of any province except Ontario and Quebec. Between 1921 and 1950 the population of the province rose by 68 per cent, and civilian employment by 88 per cent (see below), a rate of growth exceeded only by that of British Columbia.

Year	Quebec—Thous.	
	Population	Civilian Employment
1921.....	2,361	736
1931.....	2,874	947
1939.....	3,230	1,153
1950.....	3,976	1,387
Per cent Increase 1921-1950—		
Quebec.....	68	88
Canada.....	53	67

The stage of industrial advancement reached in the province by 1950 and its effects upon employment are indicated by the importance of manufacturing as a field of employment as compared with agriculture and other pursuits. As a further indication, employment was high in the province by mid-1950, even before the impact of the defence program following events in Korea, and accordingly unemployment involving about 3.5 per cent of the civilian labour force was only slightly above the minimum required for mobility in an advanced industrialized nation<sup>3</sup> (see below).

Item	1950	
	Quebec	Canada
Total Civilian Labour Force—Thous.....	1,438	5,233
Unemployment—Thous.....	51	150
Civilian Employment—Thous.....	1,387	5,083
Per cent of Civilian Employment—		
Agriculture.....	19	21
Other Primary Industries.....	3	4
Manufacturing.....	31	26
Other.....	47	49

The industrial growth of the province is illustrated by the expansion of manufacturing industries. Between 1939 and 1950 the number of plants rose by 37 per cent, employment by 74 per cent, the gross value of manufacturing output by 294 per cent in value terms and 82 per cent in volume terms (see below).

<sup>1</sup> Based on monthly employment figures as of June 1951.

<sup>2</sup> Percentages in this and the following paragraph refer to employment as reported for June 1951.

<sup>3</sup> Usually considered to be of the order of 2 to 3 per cent.

Year	Quebec			
	Number of Establishments Thous.	Number of Employees Thous.	Gross Value of Production—\$ Mill.	
			Current Dollars	Constant Dollars
1939.....	8.4	220	1,046	1,046
1950.....	11.5	383	4,125	1,901
Per cent Increase				
1939-1950—				
Quebec.....	37	74	294	82
Canada.....	40	77	299	97

A number of new firms came into existence with this general industrial growth. A total of 449 medium-sized and large companies, each employing 10 or more persons, came into operation between 1946 and 1950. These firms provided employment for over 15,000 workers in 1950 (see below).

Item	Number of New Companies	Employment in 1950
Number in Quebec.....	449	15,283
Per cent of Canadian Total.....	44	37

Buoyant domestic and foreign markets, particularly the latter, for many of Quebec's basic and processed materials brought increased returns to Quebec businessmen and encouraged further capital expansion. This is illustrated by the ratios of profits to assets in the data below.

Item	Quebec	
	1945	1949
Number of Companies—		
Reporting Profits.....	5,034	6,727
Reporting Losses.....	1,214	2,958
Total.....	6,248	9,685
Amounts of Profit Companies—		
Profits—\$ Mill.....	382	523
Assets—\$ Mill.....	7,371	8,718
Profits of Profit Companies as Per cent of Assets.....	5.2	6.0
Per cent Increase for Profit Companies, 1945-1949—		
Profits—Quebec.....	37	
—Canada.....	56	
Profits as Per cent of Assets		
—Quebec.....	15	
—Canada.....	16	

An important factor in this industrial expansion was the considerable rise in capital expenditures made in the province in the post-war period. This is illustrated by the following data on manufacturing investment (for more details see Table 119).

Year	Manufacturing Investment—Quebec	
	Current Dollars Mill.	Constant Dollars Mill.
1945.....	87.5	62.5
1948.....	185.7	96.6
1950.....	155.1	73.0
Per cent Increase 1945-1950—		
Quebec.....	77	17
Canada.....	85	22

The preponderance of manufacturing in the business sector of Quebec's economy is illustrated by the fact that in 1950 18.4 per cent of total capital expenditures were made by manufacturing enterprises, while the Canadian average was 13.6 per cent (see below). A few large companies making substantial capital outlays led the way in manufacturing expansion in 1950. Expenditures of over a million dollars each in 1950 were made on projects such as a brewery, a sugar refinery, a textile mill, a pulp and paper mill, a plant manufacturing electrical apparatus, and a new chemical factory. In addition a large number of small and medium-sized firms undertook numerous plant expansion and improvement projects which, although involving comparatively moderate outlays, were quite important in aggregate terms.

Type of Investment	1950—Per cent	
	Quebec	Canada
Manufacturing.....	18.4	13.6
Utilities.....	17.5	19.5
Agriculture.....	6.7	11.0
Other Business.....	12.9	15.9
Total Business.....	55.5	60.0
Institutions.....	6.0	5.5
Housing.....	27.0	22.1
Governments.....	11.5	12.4
Total.....	100.0	100.0

The substantial economic expansion in the province over the last decade has manifested itself in several ways. First, incomes in the province have risen considerably both in current terms and after allowance is made for rising prices. Personal income per capita in 1950 amounted to \$822, or 145 per cent above 1939 in current dollars and 50 per cent in constant dollars (see below).



Item	1939	1950
Personal Income—\$ Mill.....	1,083	3,267
Personal Income per Capita—\$.....	335	822
Per cent Increase 1939-1950 of Personal Income per Capita—		
Quebec—Current Dollars.....	145	
—Constant Dollars.....	50	
Canada—Current Dollars.....	153	
—Constant Dollars.....	54	

Secondly, there has been a notable increase in the leisure enjoyed by workers in the province. For example, the average wage earner in manufacturing worked about 48 hours per week in 1939 but only 44 hours in 1950, a decline of 8 per cent in the length of the working week. But hourly earnings were up notably from an average of 37 cents per hour to 93 cents, an increase of 151 per cent in current dollars and 49 per cent in real terms.

Thirdly, increased production followed in the wake of large capital expenditures, modernization of production facilities, improved production techniques, increased skills of the working force, and greater managerial experience. For example, an average worker in manufacturing in the province of Quebec produced about \$11,000 worth of goods in 1950, or 13 per cent more in real terms than he did in 1939. If account is taken of the shorter work week his hourly production has increased by about 23 per cent. This rise in productivity has in turn made it possible for manufacturing industries to offset some of the rising costs in the last decade.

### Ontario

More diversified industrially than Quebec and relying more on national markets than any other region in Canada is the province of Ontario, Canada's most populous and industrialized province. Within the province the regional economy which influences the pattern of capital expenditures has two distinct areas.

The northern part draws its economic strength from the development of mineral and forest resources which has taken place at a particularly rapid rate in the last decade. A great deal of these basic materials is processed and refined in the region and the major proportion is sold abroad. With export markets for most raw and semi-processed materials being fairly firm in the post-war period, and particularly buoyant since mid-1950, capital expenditures in this region have accordingly been heavy. The rewards for intensive development of natural resources have attracted large numbers of people, and many urban and rural communities have either sprung up or grown very rapidly in the recent past.

The southern part of the province is the most densely populated and prosperous area in Canada. Its agricultural, processing and manufacturing industries are highly diversified and their output is sold far beyond Ontario's borders. Concentrated in this region are the

basic steel industry and industries fabricating metal products. Thus, Southern Ontario contains a major segment of national capacity in those industries which have been of major importance in contributing to Canada's industrial growth.

Ontario is Canada's leading producer of metallic minerals, accounting for almost half of the country's production in value terms. Ontario is the sole producer of nickel, calcium, cobalt and magnesium. Moreover, it is the principal producer in Canada of platinum (99 per cent of production), iron ore (67 per cent), gold (55 per cent) and copper (44 per cent).<sup>1</sup>

Among the non-metallic minerals, Ontario is Canada's only producer of graphite, the leading producer of quartz (81 per cent) and salt (79 per cent), and the second largest producer of mica (24 per cent) and gypsum (6 per cent). Ontario is well endowed with the major structural materials, producing more lime (52 per cent) and sand and gravel (32 per cent) than any other region and ranking second in production of cement (32 per cent) and stone (29 per cent).

Ontario is Canada's second largest producer of electric energy (26 per cent) and natural gas (15 per cent). Its proximity to large United States coal fields gives it a further important advantage in regard to sources of fuel and power.

Characterized by a higher degree of specialization between areas than in Quebec and a wider diversity of products, Ontario's farming industry has a greater value of sales than that of any other region except the Prairies, contributing 31 per cent of the national total farm cash income. Ontario is Canada's leading producer of a number of farm products. The region accounts for the following proportions of Canadian farm cash income from these products: 96 per cent from tobacco, 58 per cent from vegetables, 51 per cent from poultry, 47 per cent from hogs, 41 per cent from eggs and 36 per cent from dairy products. The Ontario region is second in the production of cattle and calves and of sheep and lambs which contribute 32 and 31 per cent, respectively, of Canadian farm cash income from these sources. Even in grain production Ontario has an important place, producing by far the larger part of Canada's corn crop (97 per cent).

In the field of manufacturing Ontario plants are the sole producers of such items as steam and gas turbines, spark plugs, radium products for industrial and medical use, and stainless steel rolling mill products. Further, Ontario's industries lead in the production of primary steel (66 per cent of Canadian employment in that industry at mid-1951), motor vehicles and parts (96 per cent), agricultural implements (95 per cent), electrical equipment (72 per cent), rubber and leather products (57 per cent), machinery, boilers and engines (55 per cent) and chemicals (51 per cent).

The rapid rate of resources development, population growth and urbanization, and industrial expansion were the major factors making Ontario's capital expenditure program in the post-war period the largest in the province's history.

<sup>1</sup> All percentages in this and the three paragraphs following relate to the year 1950.

Important resources development projects include expansion of existing ore properties such as those of Algoma in the Sault Ste. Marie area. Among new undertakings the most significant has been iron ore development in the Steep Rock area. Only a few thousand tons of iron ore were mined there in 1944 but developments undertaken since the end of the war have raised the output to approximately 1.3 million tons in 1951. Another iron ore body of major proportions is being developed at Marmora in the central part of Ontario. Other developments in the mineral field include production of asbestos for the first time in Ontario on a large-scale commercial basis at the new Munro Mine near Matheson.

The rapid industrial growth of the province necessitated also a large expansion of electric power-generating facilities and this has led to the building of extensive new hydro-electric and steam plants in the post-war period. Among the larger power projects under way or completed in the post-war period are the Toronto and Windsor steam plants with three-quarters of a million horsepower each, the Des Joachims and Niagara developments, each involving about one million horsepower, and the La Cave and Cheneaux plants with one-quarter of a million and 150,000 horsepower respectively. These and a number of smaller developments when in operation will involve the creation of an additional 2.7 million horsepower by 1955, or about double the installed power capacity available in the province at the end of World War II.<sup>1</sup>

Ontario's population grew by 54 per cent between 1921 and 1950 and the number of persons working in civilian occupations by 72 per cent (see below). Urban growth, reflecting associated industrial and commercial expansion, was still more rapid. Such cities as Greater Toronto, Greater Hamilton and Greater Windsor

comprised 36 per cent of total civilian employment. This proportion compares with 31 per cent for Quebec, Canada's second most industrialized province, and 26 per cent for the country as a whole. Unemployment at mid-1950, involving a little less than 2 per cent of the labour force was at about the minimum required to assure industrial and occupational mobility (see below).

Item	1950	
	Ontario	Canada
Total Civilian Labour Force—Thous. ....	1,829	5,233
Unemployment—Thous. ....	32	150
Civilian Employment—Thous. ....	1,797	5,083
Per cent of Civilian Employment		
Agriculture.....	15	21
Other Primary Industries.....	2	4
Manufacturing.....	36	26
Other.....	47	49

Two sets of data illustrate further the rapid expansion of provincial manufacturing industries in the last decade. First, between 1939 and 1950 the number of establishments rose by 31 per cent, employment by 77 per cent, and gross value of production by 295 per cent in value terms and 94 per cent in real terms (see below).

Year	Ontario			
	Number of Establishments Thous.	Number of Employees Thous.	Gross Value of Production—\$ Mill.	
			Current Dollars	Constant Dollars
1939.....	9.8	319	1,746	1,746
1950.....	12.8	564	6,889	3,392
Per cent Increase 1939-1950—				
Ontario.....	31	77	295	94
Canada.....	40	77	299	97

Secondly, a total of 314 manufacturing firms came into operation in the post-war period, each employing 10 or more persons. By 1950 this group of companies had provided close to 18,000 additional jobs for industrial workers and were producing many new products formerly not manufactured in Canada (see below).

Item	Number of New Companies	Employment in 1950
Number in Ontario.....	314	17,846
Per cent of Canadian Total.....	30	43

Year	Ontario—Thous.	
	Population	Civilian Employment
1921.....	2,934	1,047
1931.....	3,432	1,246
1939.....	3,708	1,413
1950.....	4,515	1,797
Per cent Increase 1921-1950—		
Ontario.....	54	72
Canada.....	53	67

about doubled their population in this period. The growth in the northern part of the province is reflected by the rapidly increasing population of Sudbury, from less than 8 thousand in 1921 to about 47 thousand in 1950.

Manufacturing industries in Ontario are making the most important contribution to the prosperity of the province. At mid-1950 employment in manufacturing

<sup>1</sup> These developments exclude over one million horsepower obtainable from the St. Lawrence Waterway project.

Another indication of business growth in Ontario is the large increase in the number of companies with head office in Ontario. In the first four post-war years the number of incorporated companies rose by about one-third. As business operations increased so did profits, both in absolute terms and in relation to corporate assets (see below).

Item	Ontario	
	1945	1949
Number of Companies—		
Reporting Profits.....	7,195	8,903
Reporting Losses.....	2,028	3,266
Total.....	9,223	12,169
Amounts of Profit Companies—		
Profits—\$ Mill.....	511	851
Assets—\$ Mill.....	6,521	9,478
Profits of Profit Companies as Per cent of Assets.....	7.8	9.0
Per cent Increase for Profit Companies, 1945-1949—		
Profits—Ontario.....	67	
—Canada.....	56	
Profits as Per cent of Assets—Ontario....	15	
—Canada....	16	

Reflecting the industrial growth of the province and influenced by a large demand for both basic materials and manufactured commodities, capital expenditures rose notably since the end of World War II in value terms, although less markedly in terms of volume (see below, and further details in Table 119).

Year	Manufacturing Investment—Ontario	
	Current Dollars Mill.	Constant Dollars Mill.
1945.....	148.2	105.9
1948.....	289.4	150.6
1950.....	239.3	112.4
Per cent Increase 1945-1950—		
Ontario.....	61	6
Canada.....	85	22

While manufacturing expansion has been the most important factor in capital expansion in the early post-war years, public utility development, particularly electric power, has more recently been the major element of business investment (see below). Large capital expenditure programs in manufacturing include annual outlays of 3 to 4 million dollars by each of the largest

automobile manufacturing establishments, and expenditures of about the same magnitude on a nylon factory, a textile mill, a pulp and paper plant, a steel plant, a non-ferrous metals refinery, a plant manufacturing electrical machinery, an oil refinery and a chemical plant.

Type of Investment	1950—Per cent	
	Ontario	Canada
Manufacturing.....	16.7	13.6
Utilities.....	21.5	19.5
Agriculture.....	8.7	11.0
Other Business.....	16.4	15.9
Total Business.....	63.3	60.0
Institutions.....	5.1	5.5
Housing.....	22.5	22.1
Governments.....	9.1	12.4
Total.....	100.0	100.0

Continuing economic development and increasing prosperity in Ontario brought many benefits to the people of the province. Of these, three are of particular significance. First, total personal income in Ontario has tripled in the period 1939 to 1950, reaching in the latter year a record total of \$5.3 billion. On a per capita basis income has risen by close to 150 per cent. If allowance is made for rising prices in the intervening period, personal income per person rose by about 51 per cent in real terms (see below).

Item	1939	1950
Personal Income—\$ Mill.....	1,766	5,327
Personal Income per Capita—\$.....	476	1,181
Per cent Increase 1939-1950 of Personal Income per Capita—		
Ontario—Current Dollars.....	148	
—Constant Dollars.....	51	
Canada—Current Dollars.....	153	
—Constant Dollars.....	54	

Secondly, a real improvement on the income side has been achieved in spite of a reduction in the number of hours worked. The average person employed in manufacturing in Ontario worked in 1950 about 42 hours per week as compared with 47 hours per week in 1939. This shortening of the working week was accompanied by notable increases in hourly earnings from an average of 46 cents in manufacturing in 1939 to \$1.09 in 1950, a rise of 137 per cent in current dollar terms and 46 per cent in constant dollar terms.

Thirdly, both rising real income and increased leisure were facilitated by rising industrial productivity. The last became possible as large capital expenditures began to pay dividends and increased managerial



experience, greater labour skills and mass production techniques combined to reduce man-hour requirements per unit of output. This point is illustrated by the fact that the average worker in manufacturing in Ontario produced about \$12,000 worth of goods per year in 1950, 122 per cent more in value terms than he had produced in 1939 and about 9 per cent more in real terms. If account is taken of the shorter work week production per employee-hour in real terms increased by about 23 per cent.

### Prairie Region

The greatest natural resources of the Prairie region continue to be its soil and climate, which have made it one of the most important grain growing areas in the world. In recent years other resources have begun to challenge these two. The most important are oil and natural gas in Alberta and Saskatchewan, and metals and other minerals in Saskatchewan and Manitoba. In addition to the contribution their exploitation is making to incomes in the area, these developments are providing the basis for important new manufacturing industries. In addition to being Canada's most important source of coal, natural gas and petroleum, the Prairie region, including the Northwest Territories, is at present the sole source of sodium sulphate, the second producer of cadmium (16 per cent of the total), selenium (28 per cent), and tellurium (22 per cent), and ranks third in production of zinc (16 per cent), copper (19 per cent) and gold (11 per cent). Production of oil in the Prairie region, concentrated mainly in Alberta, almost quadrupled from 1947 to 1950 with the intensive development of the Lloydminster, Leduc and Redwater fields. Among important recent developments in metals production in the Prairie region are the discovery and opening up of major uranium fields in Saskatchewan and of substantial nickel-copper deposits at Lynn Lake in Manitoba.

Prairie agriculture, which contributes 44 per cent of Canadian farm income, has also undergone important changes recently in the direction of diversification and of improvement in methods of organization and operations. Sugar beet acreage has almost tripled since before the war and the production of vegetables for canning in Southern Alberta has increased considerably. In recent years new forms of agriculture have emerged, such as the cultivation of sunflowers for the manufacture of oils, meal and fuel in the Altona district of Southern Manitoba. The trend towards more effective use of regional resources is exemplified by the growth of the feed lots in the irrigated areas of Southern Alberta, enabling this region to reap the rewards for fattening and finishing cattle which formerly went to Eastern Canadian and United States operators. The mechanization of farming on the Prairies is illustrated by the fact that more farm machinery is employed here than in any other region in Canada.<sup>1</sup>

While a large part of Prairie industry consists of the processing of primary products, secondary manufacturing has expanded and become more diversified in recent

years. An example of this is the notable growth of a secondary textile industry in Greater Winnipeg. This metropolitan centre, serving as the eastern gateway to Western Canada, has been growing rapidly in importance as a commercial centre. Edmonton is becoming more industrialized not only because of the need to create more refining capacity to cope with a part of the continuously increasing flow of crude oil, but also because of the growth of new supplementary industries using oil and natural gas as sources of raw materials and power. Among these enterprises the development of a petro-chemical industry is of particular promise. Edmonton is also becoming an important distribution and transportation centre for the northern part of Canada and this has further contributed to the rapid growth of the city.

The many new economic opportunities opening up in the Prairie region in the post-war period have been responsible for the reversal of a previously declining population trend. This trend began during the depressed thirties and was accelerated during the war years when substantial numbers of workers moved to the industrialized centres of British Columbia and Ontario. In recent years Alberta has been experiencing considerable growth from migration, with Manitoba making smaller gains and Saskatchewan reducing the rate at which it had been losing population.

As a result of these divergent trends, population in the Prairie region as a whole has been rising, although at a slower rate than for Canada as a whole (see below). From 1939 to 1950 population in the Prairie Provinces rose by 6 per cent, but with more employment opportunities available the number of persons working in civilian occupations increased by 13 per cent.

Year	Prairies—Thous.	
	Population	Civilian Employment
1921.....	1,963	653
1931.....	2,363	827
1939.....	2,430	844
1950.....	2,580	955
Per cent Increase 1921-1950—		
Prairies.....	31	46
Canada.....	53	67

The preoccupation of the Prairie region with agriculture is indicated by the fact that by mid-1950 close to one-half of the civilian employed worked in this industry (see below). However, with development of other resources and an increasing number of industrial projects in this region, this ratio has been changing in favour of greater industrial employment.

<sup>1</sup> For example, the Prairie region, with about 39 per cent of Canada's agricultural labour force and 44 per cent of its farm cash income, uses about 60 per cent of the farm implements and machinery in operation in the country and accounts for almost 90 per cent of total sales of new combines and 63 per cent of tractor sales.

Item	1950	
	Prairies	Canada
Total Civilian Labour Force—Thous.....	970	5,233
Unemployment—Thous.....	15	150
Civilian Employment—Thous.....	955	5,083
Per cent of Civilian Employment—		
Agriculture.....	44	21
Other Primary Industries.....	3	4
Manufacturing.....	9	26
Other.....	44	49

Although small in relation to other fields of economic endeavour in this region—9 per cent of the total number of persons in civilian employment as of mid-1950—manufacturing industries in the Prairie Provinces have grown significantly over the last decade. The number of manufacturing establishments increased by 43 per cent between 1939 and 1950, and the gross value of manufacturing production rose by 327 per cent in current dollars and 109 per cent in constant dollars (see below).

Year	Prairies			
	Number of Establishments Thous.	Number of Employees Thous.	Gross Value of Production—\$ Mill.	
			Current Dollars	Constant Dollars
1939.....	2.8	43	283	283
1950.....	4.0	78	1,208	592
Per cent Increase 1939-1950—				
Prairies.....	43	81	327	109
Canada.....	40	77	299	97

Over 100 manufacturing companies, each employing 10 or more people, were established in the Prairie region between 1946 and 1950 by both Canadian and foreign entrepreneurs. By 1950 these new firms provided employment to approximately 3,500 additional workers (see below).

Item	Number of New Companies	Employment in 1950
Number in Prairies.....	101	3,434
Per cent of Canadian Total.....	10	8

In addition to manufacturing companies, a large number of other businesses were established in this region in the post-war period. This is indicated by the fact that the number of companies in the Prairie Provinces subject to corporation tax and for which all relevant statistics are available rose from 3,949 in 1945 to 5,224 in 1949. Profits made by corporations in this

region as a whole rose from \$94 million to \$156 million, or 66 per cent. Because of the many business opportunities that existed on the Prairies and the general economic buoyancy in the region during the post-war years, returns of entrepreneurs increased not only in absolute terms but also in relation to total assets (see below).

Item	Prairies	
	1945	1949
Number of Companies—		
Reporting Profits.....	3,166	3,924
Reporting Losses.....	783	1,300
Total.....	3,949	5,224
Amounts of Profit Companies—		
Profits—\$ Mill.....	94	156
Assets—\$ Mill.....	1,244	1,786
Profits of Profit Companies as Per cent of Assets.....	7.6	8.7
Per cent Increase for Profit Companies, 1945-1949—		
Profits—Prairies.....		66
—Canada.....		56
Profits as Per cent of Assets		
—Prairies.....		14
—Canada.....		16

The growing industrialization of the Prairie region is reflected in the composition of the investment program. First, business investment represents a higher proportion of total capital expenditures in this region than in any other region in the country. Secondly, even though agriculture remained a major factor in employment and income in the region, large capital outlays were made for resources and utility development and the expansion of manufacturing and commercial enterprises (see below). Examples of industrial projects undertaken in the post-war period include a multi-million dollar power development at Pine Falls in Manitoba, very large scale outlays for oil development in the Edmonton area, modernization of the street railway systems in all the major cities and expansion of telephone services in both urban and rural areas. In addition notable expenditures have been made on a great variety of manufacturing establishments. Manufacturing investment is concentrated in plants processing farm and mineral products, with outlays of over a million dollars each being made on a non-ferrous metals refinery in Manitoba and oil refineries in all three provinces, and large expenditures going for meat packing establishments and flour mills in all provinces. In the post-war years manufacturing of other types has become increasingly important, with large sums being expended on such projects as a cement plant, a malt manufacturing establishment, a mill producing woollen cloth, a linseed oil plant, a plant for canning vegetables, a mill producing gypsum products, a factory producing bedding, an establishment manufacturing iron castings and a mill producing knitted goods.



Type of Investment	1950—Per Cent	
	Prairies	Canada
Manufacturing.....	5.4	13.6
Utilities.....	20.1	19.5
Agriculture.....	24.4	11.0
Other Business.....	15.1	15.9
Total Business.....	65.0	60.0
Institutions.....	4.6	5.5
Housing.....	17.5	22.1
Governments.....	12.9	12.4
Total.....	100.0	100.0

While some of the expansion took place in the Prairie region during the war, the major development was concentrated in the short space of five post-war years. An outstanding feature of the development of the region in this period is the shift from a substantially one-industry region to a more diversified economy. As a result, income from agriculture which had comprised 31 per cent of the total contributed by this region to the national income in 1939 accounted for only 27 per cent of the region's contribution in 1950. At the same time, however, income earned in agriculture rose substantially in current dollar terms, mainly because of the increase in physical output and considerably more favourable prices for farm products prevailing in 1950 as compared to 1939. Some more significant absolute increases are indicated for 1951 in view of a particularly good crop. The shift to other economic pursuits in the Prairie region is even more pronounced in employment terms, to which brief reference has been made earlier. Persons working in agriculture comprised 63 per cent of civilian employment in the region in 1939, declining to 43 per cent in 1950 (see below).

Item	Prairies	
	1939	1950
National Income Originating in Agriculture \$ Mill. ....	250	700
Total National Income—\$ Mill. ....	800	2,600
National Income Originating in Agriculture as Per cent of Total National Income....	31	27
Employment in Agriculture—Thous. ....	530	411
Total Civilian Employment—Thous. ....	844	955
Employment in Agriculture as Per cent of Total Employment.....	63	43

Secondly, the Prairie region recorded the largest per capita increase in personal income of any region in Canada between 1939 and 1950. The rise was 189 per cent in current dollar terms and 76 per cent in constant dollar terms. This compares with an increase of 153 per cent and 54 per cent respectively for Canada as a whole (see

below). On an absolute basis the Prairie region with \$933 personal income per capita in 1950 ranked after Ontario, \$1,181, and British Columbia, \$1,156, but was ahead of Quebec, \$822, and the Maritimes, \$650.

Item	1939	1950
Personal Income—\$ Mill. ....	785	2,407
Personal Income per Capita—\$. ....	323	933
Per cent Increase 1939-1950 of Personal Income per Capita—		
Prairies—Current Dollars.....		189
—Constant Dollars.....		76
Canada—Current Dollars.....		153
—Constant Dollars.....		54

### British Columbia

British Columbia's principal natural assets are its extensive hydro resources, its stores of important minerals, its forest wealth, the lucrative fishing grounds lying off its coasts, its fertile river valleys and its moderate climate.

Upon these foundations has been built an economy which emphasizes the exploitation and processing of raw materials for world markets. This economy has in recent years been undergoing rapid development, the most significant facets of which are the growth of manufacturing industry and the trend towards a higher degree of processing of the products of its extractive industries. These trends are evidenced by the expansion of pulp and paper production in recent years and by the manufacture for the first time of such items as oil drill rigs, chain saws and motor generator sets for shipment to other parts of Canada and in some cases to other countries.

British Columbia, with 26 per cent of Canada's total available water power resources, is surpassed only by Quebec and in developed capacity ranks third among the regions.

Illustrative of the importance of British Columbia's mineral wealth is the fact that, including the Yukon, it is the second most important region in the production of metallic minerals, with 20 per cent of total gross value of Canadian output. The region is the only source in Canada of tin and antimony, and the principal producer of bismuth (87 per cent), lead (85 per cent), cadmium (84 per cent), zinc (47 per cent), and silver (49 per cent). British Columbia ranks third among the provinces as a coal producer, with 9 per cent of Canadian output, and is estimated to have about one-fifth of the mineable coal in the country.<sup>1</sup>

While agriculture is relatively less important in British Columbia than in any other region, the province is the foremost producer of fruits, contributing one-half of Canadian agricultural cash income from the sale of these products.

In the manufacturing field British Columbia industries are the leading producers of lumber, accounting for 48 per cent of total Canadian employment in that

<sup>1</sup> The above data relate to 1950.



field at mid-1951. With 38 per cent of Canada's total employment in fish curing and packing the region is surpassed only by the Maritimes. British Columbia also ranks second among the regions of Canada in ship-building (27 per cent) and fruit and vegetable preparations (15 per cent). Among the other important employment-providing industries is the smelting and refining of non-ferrous metals, with 17 per cent of the total national employment in the industry.

Mineral developments in British Columbia in the post-war period have been chiefly in lead, zinc, silver and gold, and substantial amounts have been spent on developments in the Kootenay area and in the northern part of the province. Investments have also been made in developing asbestos deposits in the north.

Substantial progress has been made in developing the province's huge water power potential. Developments on the Stave River at Ruskin and on the Campbell River on Vancouver Island have each added about 150,000 horsepower to British Columbia's power supply.

Manufacturing expansion in the post-war period has been highlighted by the construction of two huge pulp mills in the province at a combined cost of about \$45 million. Of almost equal importance is the multi-million dollar expansion program in a non-ferrous metals refinery and the construction of a fertilizer plant by the same company. The increasing diversity of British Columbia's manufacturing industries is illustrated by large outlays made on a steel rolling mill, a wire and cable plant and an establishment manufacturing hosiery. Other major projects include the erection of a cement plant at a cost of over \$2 million and the building of an establishment to manufacture bricks, involving a million dollar investment.

Of the different regions which make up Canada, British Columbia has had the most phenomenal growth over the last three decades. In 1921 it was sixth in size of population, but its rapid rate of expansion, accelerated in the war years and continuing in the post-war period, has raised it to third place among the provinces in population, overall production and manufacturing. British Columbia now contains 8 per cent of Canada's population. Accompanying the rapid population and industrial growth has been the opening up of many thousands of new employment opportunities. The number in civilian occupations more than doubled between 1921 and 1950, while corresponding increases for Canada as a whole were about two-thirds (see below).

Year	British Columbia—Thous.	
	Population <sup>1</sup>	Civilian Employment
1921.....	529	205
1931.....	698	283
1939.....	797	306
1950.....	1,146	422
Per cent Increase 1921-1950—		
British Columbia.....	117	106
Canada.....	53	67

<sup>1</sup> Including Yukon.

By 1950, in spite of some employment difficulties caused by the weather earlier in the year, the number of unemployed in British Columbia was reported at 12,000, or less than 3 per cent of the civilian labour force. The preponderance of manufacturing as a field of employment is indicated by the fact that every fourth person working in British Columbia is engaged in manufacturing operations (see below). This high ratio makes British Columbia the third most industrialized province in Canada, following Ontario and Quebec.

Item	1950	
	British Columbia	Canada
Total Civilian Labour Force—Thous...	434	5,233
Unemployment—Thous.....	12	150
Civilian Employment—Thous.....	422	5,083
Per cent of Civilian Employment—		
Agriculture.....	6	21
Other Primary Industries.....	9	4
Manufacturing.....	23	26
Other.....	62	49

Manufacturing industries have expanded at a more rapid rate than in any other region in Canada in the last decade. This is indicated by a doubling of manufacturing employment and a more than two-fold increase in the number of plants operating in the province and in the volume of manufacturing output. In terms of increase in the number of plants—and these to some extent reflect the diversity and distribution of manufacturing growth—the expansion was almost three times that indicated for Canada as a whole (see below).

Year	British Columbia			
	Number of Establishments Thous.	Number of Employees Thous.	Gross Value of Production—\$ Mill.	
			Current Dollars	Constant Dollars
1939.....	1.7	43	248	248
1950.....	3.6	85	1,124	553
Per cent Increase 1939-1950—				
British Columbia..	112	98	353	123
Canada.....	40	77	299	97

Many of the new manufacturing enterprises coming into operation in recent years have been comparatively large undertakings. More than 100 new companies together employing over 2,600 people were established between 1945 and 1950. This represents about 10 per cent of the total number of new large and medium-sized

companies, each employing 10 or more persons, coming into operation in this period in Canada and about 6 per cent of the total number of new jobs provided (see below).

Item	Number of New Companies	Employment in 1950
Number in British Columbia.....	101	2,615
Per cent of Canadian Total.....	10	6

Industrial growth has not been confined to establishing a large number of new manufacturing firms. New businesses have sprung up in primary industries and in wholesale and retail trade and service. Latest Department of National Revenue figures indicate a growth in the number of total incorporated companies operating in British Columbia from some 4,000 in 1945 to over 6,000 in 1949. Reflecting buoyant economic conditions in the region, business profits have risen significantly not only in absolute terms but also in relation to total capital invested (see below). The remarkable feature is that even with due regard to the limitations of available data, it appears that British Columbia business has been rewarded for its initiative and expansion by comparatively higher returns than business in Canada as a whole.

Item	British Columbia	
	1945	1949
Number of Companies—		
Reporting Profits.....	3,142	3,905
Reporting Losses.....	927	2,194
Total.....	4,069	6,099
Amounts of Profit Companies—		
Profits—\$ Mill.....	104	177
Assets—\$ Mill.....	1,406	2,039
Profits of Profit Companies as Per cent of Assets.....	7.4	8.7
Per cent Increase for Profit Companies, 1945-1949—		
Profits—British Columbia.....	70	
—Canada.....	56	
Profits as Per cent of Assets—		
—British Columbia.....	18	
—Canada.....	16	

While manufacturing expansion has been one of the most important factors in the capital expenditure program of the province, investment outlay by utilities has assumed even greater proportions in recent years. As the data below indicate, manufacturing investment in British Columbia tripled in the first five post-war years

in current dollar terms and almost doubled in constant dollar terms. Also, while in Canada as a whole manufacturing investment reached a high point in 1948, manufacturing expansion in British Columbia continued, reaching a peak total of \$58 million in 1950, with a further rise indicated in 1951.

Year	Manufacturing Investment— British Columbia	
	Current Dollars Mill.	Constant Dollars Mill.
1945.....	19.9	14.1
1948.....	43.5	22.7
1950.....	57.7	26.9
Per cent Increase 1945-1950—		
British Columbia.....	190	91
Canada.....	85	22

Capital expenditures by utilities led the business investment field in 1950, involving 17 per cent of the total. Manufacturing investment followed, with 14 per cent. Capital expenditures by the "other" business group consisted of 7 per cent by primary industries (excluding agriculture) and construction, and 14 per cent by the trade, finance and commercial service group. Agricultural investment trailed behind with 4 per cent. Compared with the investment pattern for Canada as a whole, a greater proportion of business capital expenditures in British Columbia was devoted to manufacturing and "other" business groups and a smaller proportion to utilities and agriculture.

Type of Investment	1950—Per cent	
	British Columbia	Canada
Manufacturing.....	14.1	13.6
Utilities.....	17.1	19.5
Agriculture.....	3.8	11.0
Other Business.....	20.7	15.9
Total Business.....	55.7	60.0
Institutions.....	6.5	5.5
Housing.....	21.4	22.1
Governments.....	16.4	12.4
Total.....	100.0	100.0

Population growth, extensive use of bountiful natural resources, and rapid industrialization, covering both the processing and the more advanced fabricating stages, have brought great prosperity to the people of British Columbia. This prosperity is reflected in several ways.



First, personal income per capita in British Columbia (\$1,156 in 1950) is the second highest in Canada, exceeded only by the Ontario average (\$1,181) and notably above the national average (\$969). Between 1939 and 1950 personal income per capita in British Columbia has risen by 143 per cent in absolute terms. After allowance for rising prices, real income over this period rose by 48 per cent (see below). This rise is a little below the national average. The explanation for this is that incomes in British Columbia before the war were considerably higher than in most other parts of the country. In more recent years some of the other regions starting from a lower base have come closer to the higher income levels prevailing in Ontario and British Columbia.

Item	1939	1950
Personal Income—\$ Mill. ....	379	1,325
Personal Income per Capita—\$.....	476	1,156
Per cent Increase 1939-1950 of Personal Income per Capita—		
British Columbia—Current Dollars.....	143	
—Constant Dollars.....	48	
Canada—Current Dollars.....	153	
—Constant Dollars.....	54	

Secondly, higher real incomes have been achieved in spite of a reduction in the number of hours worked in industry. For example, in manufacturing the average person worked 45.5 hours in 1939 and about 38 hours in 1950. This represented a decline of 17 per cent, not matched in any other region in Canada. British Columbia workers, with the shortest working week in Canada, are among the highest paid in the country. Average hourly earnings in manufacturing rose from 50 cents in 1939 to \$1.24 in 1950. The 1950 wage level was therefore two and one-half times what it had been in 1939 in absolute terms, and one and one-half times as much after allowance has been made for the change in the purchasing power of the dollar.

Thirdly, the above improvement in real incomes and the length of the working week<sup>1</sup> were facilitated by one of the largest productivity increases experienced in any part of the country. The average worker in manufacturing turned out \$5,800 worth of goods in 1939 and about \$13,200 in 1950. This is an increase of 128 per cent in current dollar terms and 12 per cent in constant dollar terms. Allowing for changes in the number of hours worked per week, production per man-hour in real terms rose 35 per cent between 1939 and 1950. This compares with a 23 per cent increase for Ontario and a national average rise of 25 per cent. In British Columbia the increase in productivity is largely due to a relatively greater degree of mechanization and greater industrial diversification with emphasis on large-scale equipment-using industries.

## Yukon and Northwest Territories

The description of the Prairie region includes data relating to capital expansion and economic development in the Northwest Territories. Similarly, data relating to the Yukon are included in the section on the British Columbia region. While not too significant statistically, economic expansion in the northern part of Canada has become considerably important in certain fields and represents the latest phase in pushing back the Canadian frontier.

In the forefront of expansion in this area is the development of mineral deposits. The northern region is the only producer of tungsten and the principal producer of uranium in Canada. In addition it accounts for 10 per cent of silver production, 7 per cent of gold and 4 per cent of cadmium and lead. Crude petroleum is presently being produced in relatively small quantities, but the potential in the area is great.

Expansion in the north has not been entirely confined to the exploitation of the mineral wealth. Important water power developments have taken place at Snare River in the Northwest Territories and at Mayo in the Yukon. Expansion of the fishing industry has resulted in a catch valued at about one million dollars annually. Substantial outlays have been made to conserve the wild life in the area. Transportation facilities have been improved with the construction of the Alaska Highway, the MacKenzie Highway and new roads in the Yukon.

All these projects have merely scratched the surface. Development of the potential of the area as a source of additional wealth is just beginning.

## Investment by Cities

Industrial development in the more advanced fabricating stages is largely concentrated in 25 of the country's major cities. These urban centres contain 40 per cent of Canada's population but in 1950 they were responsible for 54 per cent of manufacturing investment. Manufacturing investment per capita amounted to \$44 in the major cities, as compared to \$26 in the rest of Canada (see below). The more rapid industrial growth in the larger urban centres was accompanied by a significant expansion of the other capital facilities. For example, housing completions in relation to population were proceeding about twice as fast in the 25 major cities as in the rest of the country. This is indicated by data on dwellings completed, which numbered 9.6 per thousand population in the 25 centres as against 4.6 in other parts of Canada (see below).<sup>2</sup>

Among the 25 metropolitan and other major cities, each with population of 30,000 or more, there is a great deal of variation in the rate at which capital expansion is taking place. For example, metropolitan Montreal, Canada's largest city, experienced the greatest industrial expansion in absolute terms. New investment outlay in manufacturing amounted to \$67 million in 1950. Greater Toronto, with an outlay of \$54 million, was second. But on a per capita basis capital expenditures in

<sup>1</sup> The decline in the hours worked noted above refers to manufacturing. In other industries the reduction in the number of hours worked was less spectacular although still significant.

<sup>2</sup> For a further appraisal of regional and local differentials in industrial and housing growth, see *Residential and Real Estate in Canada*, pp. 175 ff.



manufacturing in metropolitan Toronto (\$51) are greater than in metropolitan Montreal (\$44). Among the 25 cities there were nine that exceeded Greater Toronto and Greater Montreal on the basis of manufacturing investment per capita in 1950. The cities are Three Rivers,

Hamilton, London, Windsor, Brantford, Kingston, St. Catharines, Kitchener and Sudbury. The pattern, of course, would vary from year to year as large projects are completed in some cities and new undertakings are begun in others.

Cities	1950				
	Population (000)	New Investment In Manufacturing		New Investment In Housing	
		\$ Mill.	Per Capita \$	Number of Completions <sup>1</sup>	Completions per 1,000 Population
<i>Metropolitan Centres—</i>					
St. John's.....	57	2.1	37	299	5.2
Halifax.....	134	2.6	19	708	5.2
Saint John.....	72	1.1	15	335	4.6
Quebec.....	270	6.3	23	1,548	5.7
Montreal.....	1,505	66.5	44	16,111	10.7
Ottawa.....	258	6.1	24	2,014	7.8
Toronto.....	1,064	53.9	51	9,493	8.9
Hamilton.....	217	16.7	77	1,511	6.9
London.....	118	19.0	161	1,420	12.0
Windsor.....	159	12.4	78	1,214	7.6
Winnipeg.....	338	12.0	36	3,140	9.2
Vancouver.....	558	13.8	25	5,091	9.1
Victoria.....	109	1.3	12	1,289	11.8
Sub-total.....	4,859	213.8	44	44,173	9.0
<i>Other Major Cities—</i>					
Sherbrooke.....	51	2.1	41	559	10.9
Three Rivers.....	51	3.0	59	566	11.0
Brantford.....	37	3.0	81	582	15.7
Kingston.....	33	4.1	124	258	7.8
St. Catharines.....	37	4.9	132	267	7.2
Sudbury.....	47	3.2	68	414	8.8
Fort William.....	34	0.7	21	220	6.4
Kitchener.....	43	3.3	77	838	19.4
Regina.....	72	1.8	25	575	7.9
Saskatoon.....	54	0.9	17	491	9.0
Calgary.....	112	2.1	19	2,055	18.3
Edmonton.....	149	3.5	23	2,824	18.9
Sub-total.....	720	32.6	45	9,649	13.4
Total 25 Cities.....	5,579	246.4	44	53,822	9.6
Rest of Canada <sup>2</sup> .....	8,266	213.0	26	38,132	4.6
Canada <sup>2</sup> .....	13,845	459.4	33	91,954	6.6

<sup>1</sup> Including conversions.

<sup>2</sup> Including Yukon and Northwest Territories.

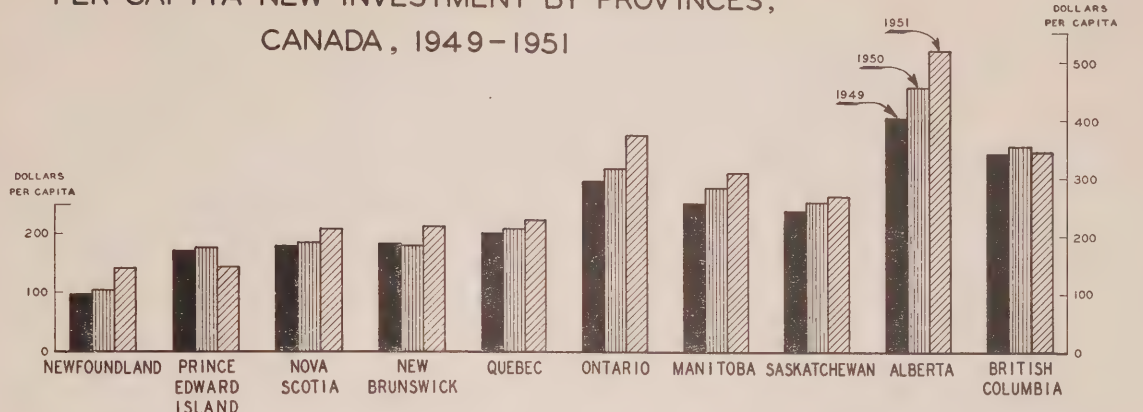
### Detailed Information on Investment by Provinces and Cities

Per capita new investment by private industry, individuals and institutions and by public authorities

in each of the ten provinces for the years 1949 to 1951 is shown in Figure 58. More detailed information on the type and extent of capital, repair and maintenance expenditures by provinces and cities for the years 1945 to 1951 will be found in Tables 116 to 120 in Part II.

- FIGURE 58 -

# PER CAPITA NEW INVESTMENT BY PROVINCES, CANADA, 1949-1951



ECONOMIC RESEARCH DIVISION, DEPT. OF TRADE AND COMMERCE.

## Conclusion

The appraisal of this section has touched upon some of the differences in the rates of capital expansion as well as the composition of the programs undertaken in the various regions and localities. It has also dealt briefly with some of the factors that have contributed to these differences. The brief regional analysis that is within the scope of the present study serves chiefly to illustrate

the importance of regional influences on the working of the Canadian economy. National investment analysis, particularly as it is designed to assist policy formulation by business, government or others, will be greatly aided by a clearer understanding of what are some of the dynamic elements in Canada's major economic regions and areas. It is through the better understanding of regional economics that a deeper insight can be gained into the working of the Canadian economy as a whole.





## **Part II**

### **Tabular Material**



TABLE 1. Population, New Private and Public Investment, Exports and Gross National Product, Canada, 1926-1951

Year	Population	Private and Public New Investment			Exports <sup>1</sup>			Gross National Product	
		Total	Per cent of Gross National Product	Per Capita	Total	Per cent of Gross National Product	Per Capita	Total	Per Capita
	Mill.	\$ Mill.		\$	\$ Mill.		\$	\$ Mill.	\$
1926	9.5	917	17.3	97	1,261	23.8	133	5,294	557
1927	9.6	1,087	19.2	113	1,211	21.4	126	5,647	588
1928	9.8	1,296	21.2	132	1,339	21.9	137	6,105	623
1929	10.0	1,518	24.6	152	1,152	18.7	115	6,166	617
1930	10.2	1,287	23.2	126	864	15.6	85	5,546	544
1931	10.4	881	19.3	85	588	12.9	57	4,560	438
1932	10.5	491	13.0	47	490	13.0	47	3,767	359
1933	10.6	327	9.2	31	529	14.9	50	3,552	335
1934	10.7	416	10.3	39	649	16.1	61	4,034	377
1935	10.8	505	11.6	47	725	16.7	67	4,345	402
1936	11.0	590	12.6	54	938	20.0	85	4,701	427
1937	11.1	828	15.5	75	997	18.6	90	5,355	482
1938	11.2	773	14.8	69	838	16.0	75	5,233	467
1939	11.3	765	13.4	68	925	16.2	82	5,707	505
1940	11.4	1,048	15.3	92	1,179	17.2	103	6,872	603
1941	11.5	1,463	17.2	127	1,621	19.0	141	8,517	741
1942	11.7	1,542	14.6	132	2,364	22.4	202	10,539	901
1943	11.8	1,485	13.3	126	2,971	26.6	252	11,183	948
1944	12.0	1,309	11.0	109	3,440	28.8	287	11,954	996
1945	12.1	1,284	10.8	106	3,218	27.2	266	11,850	979
1946	12.3	1,703	14.2	138	2,312	19.2	188	12,026	978
1947	12.6	2,489	18.1	198	2,775	20.2	220	13,768	1,093
1948	12.9	3,175	20.3	246	3,075	19.7	238	15,613	1,210
1949 <sup>2</sup>	13.5	3,502	21.3	259	2,993	18.2	222	16,462	1,219
1950 <sup>2</sup>	13.8	3,823	21.2	277	3,118	17.3	226	18,029	1,306
1951 <sup>2</sup>	14.1	4,408 <sup>3</sup>	21.0	313	3,600	17.1	255	21,000	1,489

1. Excludes foreign produce.

2. Includes Newfoundland.

3. The 1951 mid-year survey of investment intentions placed this total at \$4,561 million while subsequent adjustments to the housing estimates raised this figure to \$4,641 million. This represents 22.1 per cent of the gross national product and a per capita outlay of \$329.

TABLE 2. New Investment in Durable Physical Assets, Private and Public, in Current and Constant Dollars, Canada, 1926-1951

(Millions of Dollars)

Year	Private New Investment		Public New Investment		Private and Public New Investment	
	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars
1926	747	700	170	156	917	856
1927	860	813	227	211	1,087	1,024
1928	1,033	966	263	240	1,296	1,206
1929	1,176	1,071	342	302	1,518	1,373
1930	923	869	364	334	1,287	1,203
1931	593	588	288	282	881	870
1932	327	340	164	171	491	511
1933	217	233	110	119	327	352
1934	286	305	130	139	416	444
1935	346	367	159	170	505	537
1936	423	439	167	173	590	612
1937	579	552	249	238	828	790
1938	539	528	234	230	773	758
1939	547	534	218	212	765	746
1940	726	656	322	294	1,048	950
1941	936	766	527	433	1,463	1,199
1942	899	686	643	487	1,542	1,173
1943	633	455	852	608	1,485	1,063
1944	724	506	585	408	1,309	914
1945	922	638	362	246	1,284	884
1946	1,286	843	417	258	1,703	1,101
1947	1,541	1,123	548	299	2,489	1,422
1948	2,372	1,192	803	383	3,175	1,575
1949	2,559	1,234	943	428	3,502	1,662
1950	2,830	1,278	993	426	3,823	1,704
1951	3,193	1,320	1,215	484	4,408	1,804



**TABLE 3. New Investment in Durable Physical Assets, All Governments, by Departments and Agencies, Canada, 1926-1951**

(Millions of Dollars)

Year	Federal Government		Provincial Governments		Municipal Governments		All Governments <sup>1</sup>	
	Government Departments	All Agencies	Government Departments	All Agencies	Government Departments	All Agencies	Government Departments	All Agencies
1926.....	33	71	28	41	25	58	86	170
1927.....	46	104	36	51	29	72	111	227
1928.....	51	120	47	64	32	79	130	263
1929.....	58	165	57	87	37	90	152	342
1930.....	79	156	77	112	37	96	193	364
1931.....	60	110	68	100	31	78	159	288
1932.....	36	46	45	59	28	59	109	164
1933.....	26	35	28	34	25	41	79	110
1934.....	29	39	53	58	21	33	103	130
1935.....	35	47	58	71	25	41	118	159
1936.....	27	54	59	69	24	44	110	167
1937.....	31	72	112	130	26	47	169	249
1938.....	42	74	82	106	28	54	152	234
1939.....	45	74	73	92	26	52	144	218
1940.....	179	214	49	67	20	41	248	322
1941.....	370	411	54	77	24	39	448	527
1942.....	422	501	39	58	24	42	485	601
1943.....	398	553	37	48	28	43	463	644
1944.....	187	407	29	41	29	46	245	494
1945.....	105	210	53	76	47	76	205	362
1946.....	40	141	101	138	83	138	224	417
1947.....	51	156	154	233	86	159	291	548
1948.....	97	261	198	330	98	212	393	803
1949.....	138	301	169	397	99	245	406	943
1950.....	173	313	188	410	112	270	473	993
1951.....	289	468	175	402	129	345	593	1,215

1. Excludes cost of United States Government defence installations in Canada.

**TABLE 4. New Investment in Durable Physical Assets and Repair and Maintenance, and Government Expenditures on Other Goods and Services, Canada, 1926-1951**

(Millions of Dollars)

Year	All Governments				
	New Investment <sup>1</sup>	Repair and Maintenance <sup>1</sup>	Sub-total <sup>1</sup>	Expenditures on Other Goods and Services	Expenditures on All Goods and Services
1926.....	106	61	167	354	521
1927.....	136	73	209	358	567
1928.....	158	81	239	358	597
1929.....	182	89	271	411	682
1930.....	229	94	323	444	767
1931.....	183	101	284	454	738
1932.....	127	78	205	438	643
1933.....	87	57	144	382	526
1934.....	109	68	177	391	568
1935.....	125	70	195	408	603
1936.....	120	66	186	414	600
1937.....	177	78	255	416	671
1938.....	160	91	251	469	720
1939.....	156	90	246	489	735
1940.....	256	76	332	833	1,165
1941.....	465	78	543	1,146	1,689
1942.....	523	74	597	3,129	3,726
1943.....	502	81	583	3,644	4,227
1944.....	271	102	373	4,649	5,022
1945.....	239	119	358	3,346	3,704
1946.....	312	151	463	1,369	1,832
1947.....	364	167	531	1,039	1,570
1948.....	486	182	668	1,130	1,798
1949.....	509	174	683	1,445	2,128
1950.....	587	207	794	1,520	2,314
1951.....	701	231	932	2	2

1. To assure comparability between investment and total expenditures on goods and services, outlays for certain institutional and housing projects included in the latter series have been added to the former. Thus, column 4 of this table is not comparable with column 12 of Table 8. Expenditures by the United States Government in Canada are excluded above but included in Table 8.

2. Not available.

**TABLE 5. New Investment in Durable Physical Assets and Repair and Maintenance, and Total Government Expenditures, All Governments, Canada. Selected Years, 1926-1950**

(Millions of Dollars)

Item	1926	1929	1930	1933	1937	1941	1944	1946	1948	1950
Public Works .....	75.7	133.3	170.7	68.9	148.5	302.4	174.3	181.0	334.8	— <sup>3</sup>
Resources Development .....	3.3	6.8	8.2	4.8	11.6	8.7	9.0	21.6	31.3	— <sup>3</sup>
Machinery and Equipment .....	12.0	20.0	23.8	10.7	21.5	145.0	67.4	41.3	61.1	— <sup>3</sup>
<b>Total .....</b>	<b>91.0</b>	<b>160.1</b>	<b>202.7</b>	<b>84.4</b>	<b>181.6</b>	<b>456.1</b>	<b>250.7</b>	<b>243.9</b>	<b>427.2</b>	<b>—<sup>3</sup></b>
Duplications <sup>1</sup> .....	4.4	8.0	9.3	5.0	12.7	7.7	6.2	19.9	33.7	— <sup>3</sup>
New Investment <sup>2</sup> .....	86.6	152.1	193.4	79.4	168.9	448.4	244.5	224.0	393.5	473.5
Repair and Maintenance .....	58.6	85.8	90.2	54.4	74.8	74.7	96.6	139.8	172.6	194.1
New Investment, Repair and Maintenance .....	145.2	237.9	283.6	133.8	243.7	523.1	341.1	363.8	566.1	667.6
Other Government Expenditures .....	587.9	643.0	691.8	872.6	1,008.0	1,920.0	5,369.8	3,030.4	2,871.9	3,877.4
Total Expenditures through Capital and Current Accounts .....	733.1	880.9	975.4	1,006.4	1,251.7	2,443.1	5,710.9	3,394.2	3,438.0	4,545.0

1. Covers expenditures on machinery and equipment used in construction and resources development, and on construction included under resources development.

2. Equals total of public works, resources development and machinery and equipment, minus duplications.

3. Not available.

**TABLE 6. New Investment in Durable Physical Assets, by Type of Private and Public Enterprise, in Current Dollars, Canada, 1926-1951**

(Millions of Dollars)

Year	Private New Investment				Public New Investment				Total Private and Public New Investment
	Business	Institutions	Housing	Sub-total	Government-Owned Enterprises	Government-Operated Institutions and Housing	Government Departments	Sub-total	
1926 .....	520	15	212	747	61	23	86	170	917
1927 .....	626	17	217	860	88	28	111	227	1,087
1928 .....	781	16	236	1,033	102	31	130	263	1,296
1929 .....	912	17	247	1,176	153	37	152	342	1,518
1930 .....	696	23	204	923	130	41	193	364	1,287
1931 .....	403	22	168	593	99	30	159	288	881
1932 .....	220	11	96	327	34	21	109	164	491
1933 .....	136	5	76	217	21	10	79	110	327
1934 .....	183	5	98	286	19	8	103	130	416
1935 .....	227	5	114	346	32	9	118	159	505
1936 .....	278	6	139	423	45	12	110	167	590
1937 .....	396	8	175	579	66	14	169	249	828
1938 .....	370	10	159	539	65	17	152	234	773
1939 .....	350	12	185	547	56	18	144	218	765
1940 .....	517	9	200	726	65	9	248	322	1,048
1941 .....	694	9	233	936	60	19	448	527	1,463
1942 .....	700	6	193	899	98	40	505	643	1,542
1943 .....	452	7	174	633	227	42	583	852	1,485
1944 .....	488	11	225	724	245	29	311	585	1,309
1945 .....	629	21	272	922	118	39	205	362	1,284
1946 .....	897	33	356	1,286	95	98	224	417	1,703
1947 .....	1,394	43	504	1,941	175	82	291	548	2,489
1948 .....	1,696	76	600	2,372	273	137	393	803	3,175
1949 .....	1,769	87	703	2,559	361	176	406	943	3,502
1950 .....	1,954	84	792	2,830	339	181	473	993	3,823
1951 .....	2,190	137	866	3,193	445	177	593	1,215	4,408

TABLE 7. New Investment in Durable Physical Assets, by Type of Private and Public Enterprise, in Constant Dollars, Canada, 1926-1951

(Millions of Dollars)

Year	Private New Investment				Public New Investment				Total Private and Public New Investment
	Business	Institutions	Housing	Sub-total	Government-Owned Enterprises	Government-Operated Institutions and Housing	Government Departments	Sub-total	
1926	483	14	203	700	56	21	79	156	856
1927	595	16	202	813	82	26	103	211	1,024
1928	738	14	214	966	94	28	118	240	1,206
1929	842	15	214	1,071	136	32	134	302	1,373
1930	667	20	182	869	120	38	176	334	1,203
1931	406	21	161	588	98	29	155	282	870
1932	229	11	100	340	35	23	113	171	511
1933	145	5	83	233	22	11	86	119	352
1934	197	5	103	305	21	8	110	139	444
1935	241	5	121	367	34	10	126	170	537
1936	290	6	143	439	47	12	114	173	612
1937	376	8	168	552	63	13	162	238	790
1938	362	10	156	528	64	17	149	230	758
1939	342	12	180	534	54	18	140	212	746
1940	465	8	183	656	59	9	226	294	950
1941	568	7	191	766	49	16	368	433	1,199
1942	534	5	147	686	74	30	383	487	1,173
1943	328	5	122	455	165	30	413	608	1,063
1944	349	7	150	506	178	20	210	408	914
1945	447	14	177	638	83	25	138	246	884
1946	608	20	215	843	61	59	138	258	1,101
1947	829	23	271	1,123	100	44	155	299	1,422
1948	876	35	281	1,192	135	65	183	383	1,575
1949	879	40	315	1,234	170	78	180	428	1,662
1950	907	36	335	1,278	78	199	199	426	1,704
1951	944	54	322	1,320	183	69	232	484	1,804

TABLE 8. New Investment in Durable Physical Assets and Repair and Maintenance, All Government Enterprises,<sup>1</sup> Institutions, Housing and Departments,<sup>2</sup> Canada, 1926-1951

(Millions of Dollars)

Year	New Investment				Repair and Maintenance				New Investment, Repair and Maintenance			
	Government-Owned Enterprises	Government-Operated Institutions and Housing	Government Departments	Sub-total	Government-Owned Enterprises	Government-Operated Institutions and Housing	Government Departments	Sub-total	Government-Owned Enterprises	Government-Operated Institutions and Housing	Government Departments	Total
1926	61	23	86	170	94	99	4	197	155	27	145	327
1927	88	28	111	227	4	78	190	210	187	32	181	400
1928	102	31	130	263	108	4	86	200	210	35	208	453
1929	153	37	152	342	109	5	86	200	262	42	238	542
1930	130	41	193	364	98	5	90	193	228	46	283	597
1931	99	30	159	288	88	5	97	190	187	35	256	478
1932	34	21	109	164	66	5	75	146	100	26	184	310
1933	21	10	79	110	62	4	54	120	83	14	133	230
1934	19	8	103	130	67	3	65	135	86	11	168	265
1935	32	9	118	159	66	3	67	136	98	12	185	295
1936	45	12	110	167	77	4	64	145	122	16	174	312
1937	66	14	169	249	82	4	75	161	148	18	244	410
1938	65	17	152	234	79	4	88	171	144	21	240	405
1939	56	18	144	218	86	4	87	177	142	22	231	395
1940	65	9	248	322	84	4	73	161	149	13	321	483
1941	60	19	448	527	96	5	75	176	156	24	523	703
1942	98	40	505	643	97	5	70	172	195	45	575	815
1943	227	42	583	852	108	6	77	191	335	48	660	1,043
1944	245	29	311	585	133	7	97	237	378	36	408	822
1945	118	39	205	362	139	8	112	259	257	47	317	621
1946	95	98	224	417	150	13	140	303	245	111	364	720
1947	175	82	291	548	169	11	158	338	344	93	449	886
1948	273	137	393	803	204	12	173	389	477	149	566	1,192
1949	361	176	406	943	208	17	162	387	569	193	568	1,330
1950	339	181	473	993	210	17	194	421	549	198	667	1,414
1951	445	177	593	1,215	219	18	218	455	664	195	811	1,670

1. Includes cost of Canol project incurred by the United States Government and estimated at \$22, \$87 and \$25 million in 1942, 1943 and 1944 respectively.

2. Includes cost of Alaska Highway and various airstrips in Canada incurred by the United States Government, and estimated at \$20, \$121 and \$66 million in the years 1942, 1943 and 1944 respectively.



**TABLE 9. New Investment in Durable Physical Assets and Repair and Maintenance, All Government Departments,<sup>1</sup> by Type of Expenditure, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment				Repair and Maintenance				New Investment, Repair and Maintenance			
	Construction <sup>2</sup>	Machinery and Equipment	Resources Development and Conservation <sup>3</sup>	Sub-total	Construction <sup>2</sup>	Machinery and Equipment	Resources Development and Conservation <sup>3</sup>	Sub-total	Construction <sup>2</sup>	Machinery and Equipment	Resources Development and Conservation <sup>3</sup>	Total
1926.....	72	12	2	86	41	8	10	59	113	20	12	145
1927.....	93	15	3	111	50	10	10	70	143	25	13	181
1928.....	109	17	4	130	56	11	11	78	165	28	15	208
1929.....	127	20	5	152	63	12	11	86	190	32	16	238
1930.....	164	24	5	193	65	13	12	90	229	37	17	283
1931.....	134	19	6	159	70	14	13	97	204	33	19	256
1932.....	91	14	4	109	55	11	9	75	146	25	13	184
1933.....	65	11	3	79	39	8	7	54	104	19	10	133
1934.....	86	13	4	103	50	8	8	66	136	21	12	169
1935.....	97	16	5	118	50	9	8	67	147	25	13	185
1936.....	88	17	5	110	47	9	7	63	135	26	12	173
1937.....	142	22	5	169	57	10	8	75	199	32	13	244
1938.....	123	23	6	152	66	13	9	88	189	36	15	240
1939.....	114	24	6	144	65	13	9	87	179	37	15	231
1940.....	179	64	5	248	52	12	9	73	231	76	14	321
1941.....	298	145	5	448	54	12	9	75	352	157	14	523
1942.....	360	139	6	505	50	11	9	70	410	150	15	575
1943.....	431	146	6	583	56	12	9	77	487	158	15	660
1944.....	237	67	7	311	75	13	9	97	312	80	16	408
1945.....	140	58	7	205	88	15	9	112	228	73	16	317
1946.....	167	41	16	224	103	26	11	140	270	67	27	364
1947.....	235	44	12	291	115	31	12	158	350	75	24	449
1948.....	313	61	19	393	123	35	15	173	436	96	34	566
1949.....	338	46	22	406	126	19	17	162	464	65	39	568
1950.....	402	44	27	473	141	32	21	194	543	76	48	667
1951.....	512	51	30	593	163	33	22	218	675	84	52	811

1. Includes costs of Alaska Highway and various airstrips in Canada incurred by the United States Government and estimated at \$20, \$121 and \$66 million in the years 1942, 1943 and 1944 respectively.

2. Excludes machinery and equipment used in construction.

3. Excludes construction projects and machinery and equipment purchases.

**TABLE 10. New Construction and Repair and Maintenance, All Government Departments,<sup>1</sup> by Type, Canada, 1926-1951**

(Millions of Dollars)

Year	New Construction			Repair and Maintenance			New Construction, Repair and Maintenance		
	Building	Engineering	Sub-total	Building	Engineering	Sub-total	Building	Engineering	Total
1926.....	8	65	73	8	33	41	16	98	114
1927.....	11	82	93	9	41	50	20	123	143
1928.....	14	95	109	10	46	56	24	141	165
1929.....	17	110	127	10	53	63	27	163	190
1930.....	26	138	164	12	53	65	38	191	229
1931.....	19	115	134	13	57	70	32	172	204
1932.....	12	79	91	10	45	55	22	124	146
1933.....	8	57	65	7	32	39	15	89	104
1934.....	9	77	86	10	40	50	19	117	136
1935.....	10	87	97	10	41	51	20	128	148
1936.....	9	79	88	9	38	47	18	117	135
1937.....	11	131	142	11	46	57	22	177	199
1938.....	13	110	123	13	53	66	26	163	189
1939.....	17	97	114	12	53	65	29	150	179
1940.....	99	80	179	9	43	52	108	123	231
1941.....	190	109	299	8	46	54	198	155	353
1942.....	246	115	361	8	42	50	254	157	411
1943.....	214	217	431	10	46	56	224	263	487
1944.....	105	132	237	11	64	75	116	196	312
1945.....	56	84	140	14	74	88	70	158	228
1946.....	24	143	167	12	90	102	36	233	269
1947.....	39	197	236	21	94	115	60	291	351
1948.....	62	252	314	23	100	123	85	352	437
1949.....	76	262	338	23	104	127	99	366	465
1950.....	103	302	405	28	114	142	131	416	547
1951.....	191	322	513	37	126	163	228	446	676

1. Includes value of construction work done in Canada by the United States Government for the Alaska Highway and various airstrips. The value of this work is estimated at \$20, \$121 and \$66 million in the years 1942, 1943 and 1944 respectively.

**TABLE 11. New Investment in Durable Physical Assets, by Type of Business and Other Enterprise, in Current Dollars, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment by Business					Other New Investment				All Private and Public Investment
	Primary Industries <sup>1</sup>	Manu- facturing	Utilities	Trade, Finance and Commercial Services	Sub-total	Housing	Institutions	Government Depart- ments <sup>2</sup>	Sub-total	
1926	135	222	174	50	581	212	38	86	336	917
1927	157	281	204	72	714	217	45	111	373	1,087
1928	208	325	246	104	883	236	47	130	413	1,296
1929	216	374	344	131	1,065	247	54	152	453	1,518
1930	171	277	295	83	826	204	64	193	461	1,287
1931	76	157	221	48	502	168	52	159	379	881
1932	46	83	95	30	254	96	32	109	237	491
1933	37	42	55	23	157	76	15	79	170	327
1934	58	50	62	32	202	98	13	103	214	416
1935	88	67	73	31	259	114	14	118	246	505
1936	101	83	93	46	323	139	18	110	267	590
1937	129	140	141	52	462	175	22	169	366	828
1938	130	115	135	55	435	159	27	152	338	773
1939	126	98	120	62	406	185	30	144	359	765
1940	148	247	131	56	582	200	18	248	466	1,048
1941	167	347	159	81	754	244	17	448	709	1,463
1942	148	387	202	61	798	223	16	505	744	1,542
1943	108	245	295	31	679	204	19	583	806	1,485
1944	155	211	308	59	733	237	28	311	576	1,309
1945	187	280	194	86	747	286	46	205	537	1,284
1946	267	337	251	137	992	413	74	224	711	1,703
1947	429	528	410	202	1,569	540	89	291	920	2,489
1948	543	579	566	281	1,969	668	145	383	1,206	3,175
1949	622	536	678	294	2,130	776	190	406	1,372	3,502
1950	668	519	744	362	2,293	845	212	473	1,530	3,823
1951	658	716	892	369	2,635	907	273	593	1,773	4,408

1. Including the construction industry.

2. Excluding government-owned enterprises and government-operated institutions and housing.

**TABLE 12. New Investment in Durable Physical Assets, by Type of Business and Other Enterprise, in Constant Dollars, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment by Business					Other New Investment				Total Private and Public Investment
	Primary Industries <sup>1</sup>	Manu- facturing	Utilities	Trade, Finance and Commercial Services	Sub-total	Housing	Institutions	Government Depart- ments <sup>2</sup>	Sub-total	
1926	126	207	160	47	540	203	34	79	316	856
1927	150	268	191	68	677	202	42	103	347	1,024
1928	199	308	227	97	831	214	43	118	375	1,206
1929	202	347	311	118	978	214	47	134	395	1,373
1930	165	269	276	77	787	182	58	176	416	1,203
1931	77	160	219	48	504	161	50	155	366	870
1932	48	86	99	31	264	100	34	113	247	511
1933	40	45	59	23	167	83	16	86	185	352
1934	63	53	67	35	218	103	13	110	226	444
1935	93	71	78	33	275	121	15	126	262	537
1936	105	87	97	48	337	143	18	114	275	612
1937	122	134	134	49	439	168	21	162	351	790
1938	127	113	132	54	426	156	27	149	332	758
1939	123	96	118	60	397	180	29	140	349	746
1940	133	222	118	51	524	183	17	226	426	950
1941	136	285	130	66	617	200	14	368	582	1,199
1942	113	295	154	47	609	169	12	383	564	1,173
1943	79	178	214	22	493	143	14	413	570	1,063
1944	111	151	223	42	527	158	19	210	387	914
1945	134	200	136	60	530	186	30	138	354	884
1946	186	229	165	88	668	250	45	138	433	1,101
1947	262	313	239	115	929	291	47	155	493	1,422
1948	287	301	284	139	1,011	314	67	183	564	1,575
1949	314	268	325	142	1,049	347	86	180	613	1,662
1950	317	244	333	163	1,057	357	91	199	647	1,704
1951	289	311	372	155	1,127	338	107	232	677	1,804

1. Including the construction industry.

2. Excluding government-owned enterprises and government-operated institutions and housing.

**TABLE 13. New Investment in Durable Physical Assets, by Type of Expenditure, in Current and Constant Dollars, Canada, 1926-1951**

(Millions of Dollars)

Year	New Construction		New Machinery and Equipment		Private and Public New Investment	
	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars
1926 .....	546	508	371	348	917	856
1927 .....	636	588	451	436	1,087	1,024
1928 .....	787	709	509	497	1,296	1,206
1929 .....	898	777	620	596	1,518	1,373
1930 .....	790	708	497	495	1,287	1,203
1931 .....	598	577	283	293	881	870
1932 .....	330	344	161	167	491	511
1933 .....	232	252	95	100	327	352
1934 .....	286	304	130	140	416	444
1935 .....	342	364	163	173	505	537
1936 .....	392	403	198	209	590	612
1937 .....	524	503	304	287	828	790
1938 .....	473	465	300	293	773	758
1939 .....	486	473	279	273	765	746
1940 .....	584	537	464	413	1,048	950
1941 .....	808	664	655	535	1,463	1,199
1942 .....	907	685	635	488	1,542	1,173
1943 .....	896	626	589	437	1,485	1,063
1944 .....	686	455	623	459	1,309	914
1945 .....	707	458	577	426	1,284	884
1946 .....	1,074	639	629	462	1,703	1,101
1947 .....	1,424	746	1,065	676	2,489	1,422
1948 .....	1,877	857	1,298	718	3,175	1,575
1949 .....	2,124	912	1,378	750	3,502	1,662
1950 .....	2,390	1,004	1,433	700	3,823	1,704
1951 .....	2,750	1,046	1,658	758	4,408	1,804

**TABLE 14. New Construction and Repair and Maintenance, by Type of Enterprise, Canada, 1926-1951**

(Millions of Dollars)

Year	New Construction					Repair and Maintenance			New and Repair and Maintenance Construction
	Housing	Other Building	Total Building	Engineering	Building and Engineering Construction	Housing	Other Construction	Housing and Other Construction	
1926 .....	212	167	379	167	546	49	204	253	799
1927 .....	217	223	440	196	636	50	229	279	915
1928 .....	236	297	533	254	787	54	250	304	1,091
1929 .....	247	343	590	308	898	56	256	312	1,210
1930 .....	204	262	466	324	790	52	239	291	1,061
1931 .....	168	174	342	256	598	46	222	268	866
1932 .....	96	91	187	143	330	40	180	220	550
1933 .....	76	61	137	95	232	40	155	195	427
1934 .....	98	70	168	118	286	44	172	216	502
1935 .....	114	79	193	149	342	46	176	222	564
1936 .....	139	110	249	143	392	50	189	239	631
1937 .....	175	148	323	201	524	55	202	257	781
1938 .....	159	135	294	179	479	53	211	264	737
1939 .....	185	138	323	163	486	57	216	273	759
1940 .....	200	239	439	145	584	63	222	285	869
1941 .....	244	363	607	201	808	77	252	329	1,137
1942 .....	223	456	679	228	907	87	269	356	1,263
1943 .....	204	326	530	366	896	88	298	386	1,282
1944 .....	237	234	471	215	686	92	369	461	1,147
1945 .....	286	252	538	169	707	96	402	498	1,205
1946 .....	413	356	769	305	1,074	105	428	533	1,607
1947 .....	540	482	1,022	402	1,424	131	461	592	2,016
1948 .....	668	632	1,300	577	1,877	162	532	694	2,571
1949 .....	776	707	1,483	641	2,124	176	556	732	2,856
1950 .....	845	785	1,630	760	2,390	191	575	766	3,156
1951 .....	907	1,014	1,921	829	2,750	201	601	802	3,552



TABLE 15. New Investment in Durable Physical Assets and Repair and Maintenance, All Enterprises, by Type of Expenditure  
Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Con- struction	Machinery and Equipment	Sub-total	Con- struction	Machinery and Equipment	Sub-total	Con- struction	Machinery and Equipment	Total
1926.....	546	371	917	253	245	498	799	616	1,415
1927.....	636	451	1,087	279	257	536	915	708	1,623
1928.....	787	509	1,296	304	276	580	1,091	785	1,876
1929.....	898	620	1,518	312	291	603	1,210	911	2,121
1930.....	790	497	1,287	291	255	546	1,081	752	1,833
1931.....	598	283	881	268	222	490	866	505	1,371
1932.....	330	161	491	220	175	395	550	336	886
1933.....	232	95	327	195	158	353	427	253	680
1934.....	286	130	416	216	183	399	502	313	815
1935.....	342	163	505	222	191	413	564	354	918
1936.....	392	198	590	239	212	451	631	410	1,041
1937.....	524	304	828	257	249	506	781	553	1,334
1938.....	473	300	773	264	241	505	737	541	1,278
1939.....	486	279	765	273	255	528	759	534	1,293
1940.....	584	464	1,048	285	295	580	869	759	1,628
1941.....	808	655	1,463	329	360	689	1,137	1,015	2,152
1942.....	907	635	1,542	356	403	759	1,263	1,038	2,301
1943.....	896	589	1,485	386	429	815	1,282	1,018	2,300
1944.....	686	623	1,309	461	485	946	1,147	1,108	2,255
1945.....	707	577	1,284	498	491	989	1,205	1,068	2,273
1946.....	1,074	629	1,703	533	547	1,080	1,607	1,176	2,783
1947.....	1,424	1,065	2,489	592	652	1,244	2,016	1,717	3,733
1948.....	1,877	1,298	3,175	694	767	1,461	2,571	2,065	4,636
1949.....	2,124	1,378	3,502	732	808	1,540	2,856	2,186	5,042
1950.....	2,390	1,433	3,823	766	819	1,585	3,156	2,252	5,408
1951.....	2,750	1,658	4,408	802	843	1,645	3,552	2,501	6,053

TABLE 16. New Investment in Durable Physical Assets and Repair and Maintenance, by Quarters, Canada, 1946-1950

(Millions of Dollars)

Year and Quarter	New Investment					Repair and Maintenance					New Investment, Repair and Maintenance				
	Construction		Sub- total	Machinery and Equipment	Total	Construction		Sub- total	Machinery and Equipment	Total	Construction		Sub- total	Machinery and Equipment	Total
	Housing	Other				Housing	Other				Housing	Other			
1946.....															
1st.....	82.5	103.9	186.4	129.6	316.0	21.1	57.1	78.2	112.7	190.9	103.6	161.0	264.6	242.3	506.9
2nd.....	98.9	160.8	259.7	164.8	424.5	25.3	105.1	130.4	143.3	273.7	124.2	265.9	390.1	308.1	698.2
3rd.....	107.2	203.8	311.0	162.2	473.2	27.4	135.9	163.3	141.1	304.4	134.6	339.7	474.3	303.3	777.6
4th.....	123.7	193.2	316.9	172.3	489.2	31.5	129.6	161.1	149.9	311.0	155.2	322.8	478.0	322.2	800.2
Total.....	412.3	661.7	1,074.0	628.9	1,702.9	105.3	427.7	533.0	547.0	1,080.0	517.6	1,089.4	1,607.0	1,172.9	2,782.9
1947.....															
1st.....	108.0	137.8	245.8	227.9	473.7	26.1	61.3	87.4	139.5	226.9	134.1	199.1	333.2	367.4	700.6
2nd.....	124.2	215.6	339.8	271.6	611.4	30.1	116.2	146.3	166.3	312.6	154.3	331.8	486.1	437.9	924.0
3rd.....	151.2	270.6	421.8	269.5	691.3	36.8	145.7	182.5	165.0	347.5	188.0	416.3	604.3	434.5	1,038.8
4th.....	156.6	260.0	416.6	296.1	712.7	37.8	138.0	175.8	181.3	357.1	194.4	398.0	592.4	477.4	1,069.8
Total.....	540.0	864.0	1,424.0	1,063.1	2,489.1	130.8	461.2	592.0	652.1	1,244.1	670.8	1,345.2	2,016.0	1,717.2	3,733.2
1948.....															
1st.....	101.4	199.1	300.5	311.5	612.0	28.8	71.8	100.6	184.1	284.7	130.2	270.9	401.1	495.6	896.7
2nd.....	169.7	292.7	462.4	354.4	816.8	34.1	133.1	167.2	209.4	376.6	203.8	425.8	629.6	563.8	1,193.4
3rd.....	195.5	370.6	566.1	297.2	863.3	48.9	172.9	221.8	175.6	397.4	244.4	543.5	787.9	472.8	1,260.7
4th.....	201.6	346.0	547.6	334.9	882.5	50.1	154.3	204.4	197.9	402.3	251.7	500.3	752.0	532.8	1,284.8
Total.....	668.2	1,208.4	1,876.6	1,298.7	3,175.3	161.9	559.1	721.0	657.7	1,461.0	830.1	1,740.5	2,570.6	2,065.0	4,635.6
1949.....															
1st.....	154.4	244.1	398.5	350.0	748.5	33.2	86.1	119.3	205.3	324.6	187.6	330.2	517.8	555.3	1,073.1
2nd.....	194.0	337.2	531.2	381.7	912.9	39.2	144.0	183.2	223.8	407.0	233.2	481.2	714.4	605.5	1,319.9
3rd.....	218.1	403.3	621.4	321.1	942.5	51.3	171.7	223.0	188.3	411.3	269.4	575.0	844.4	509.4	1,353.8
4th.....	209.5	364.1	573.6	325.2	898.8	52.3	154.0	206.3	190.7	397.0	261.8	518.1	779.9	515.9	1,295.8
Total.....	776.0	1,348.7	2,124.7	1,378.0	3,502.7	176.0	555.8	731.8	808.1	1,539.9	952.0	1,904.5	2,856.5	2,186.1	5,042.6
1950.....															
1st.....	158.1	239.5	397.6	332.5	730.1	34.3	79.9	114.2	190.0	304.2	192.4	319.4	511.8	522.5	1,034.3
2nd.....	196.9	384.7	581.6	386.9	968.5	40.6	146.6	187.2	221.2	408.4	237.5	531.3	768.8	608.1	1,376.9
3rd.....	241.8	468.1	709.9	356.8	1,066.7	56.6	178.8	235.4	203.9	439.3	298.4	646.9	945.3	560.7	1,506.0
4th.....	248.5	452.7	701.2	356.8	1,058.0	59.5	169.7	229.2	203.9	433.1	308.0	622.4	930.4	560.7	1,491.1
Total.....	845.3	1,545.0	2,390.3	1,433.0	3,823.3	191.0	575.0	766.0	819.0	1,585.0	1,036.3	2,120.0	3,156.3	2,252.0	5,408.3

**TABLE 17. New Investment in Durable Physical Assets, Private and Public, and Investment in Plant, Equipment and Housing per National Accounts, Canada, 1926-1951**

(Millions of Dollars)

Year	Private and Public Investment	Investment in Plant, Equipment and Housing per National Accounts	Reconciliation Item <sup>1</sup>
1926.....	917	809	108
1927.....	1,087	949	138
1928.....	1,296	1,136	160
1929.....	1,518	1,330	188
1930.....	1,287	1,054	233
1931.....	881	693	188
1932.....	491	362	129
1933.....	327	239	88
1934.....	416	306	110
1935.....	505	378	127
1936.....	590	469	121
1937.....	828	647	181
1938.....	773	605	168
1939.....	765	605	160
1940.....	1,048	818	230
1941.....	1,463	1,078	385
1942.....	1,542	1,044	498
1943.....	1,485	845	640
1944.....	1,309	859	450
1945.....	1,284	986	298
1946.....	1,703	1,398	305
1947.....	2,489	2,121	368
1948.....	3,175	2,685	490
1949.....	3,502	2,974 <sup>2</sup>	528
1950.....	3,823	3,199 <sup>2</sup>	624
1951.....	4,408	3,656	752

1. Includes that part of public investment expenditures covered in the National Accounts under "government expenditures on goods and services."

2. Revised since publication of the National Accounts.

**TABLE 18. New Investment in Durable Physical Assets, Farm Cash Income, and Gross Value of Production, Primary Industries, Canada, 1926-1951**

(Millions of Dollars)

Year	Agriculture		Fishing Industry		Primary Woods Operations		Primary Mining Industries	
	New Investment	Farm Cash Income	New Investment	Value of Fish Caught and Landed	New Investment	Value of Woods Operations	New Investment	Value of Mineral Production
1926.....	89.0	963	8.4	35	6.1	204	17.0	240
1927.....	109.0	941	8.3	33	6.1	206	18.0	247
1928.....	138.9	1,073	5.5	34	6.5	213	32.1	275
1929.....	121.4	936	8.6	34	6.7	220	46.2	311
1930.....	86.1	641	5.7	30	5.9	207	45.4	280
1931.....	36.3	450	3.2	18	3.7	141	22.0	230
1932.....	28.7	389	3.8	15	2.2	92	7.3	191
1933.....	19.2	402	5.4	16	2.4	94	8.7	221
1934.....	36.1	492	5.7	20	2.9	106	11.4	278
1935.....	41.0	520	5.0	21	3.2	115	31.3	312
1936.....	52.8	580	5.8	22	4.0	135	31.1	362
1937.....	73.5	640	5.1	23	5.1	183	33.4	457
1938.....	77.4	661	4.9	23	4.5	148	33.6	442
1939.....	74.7	717	4.4	24	4.9	158	30.7	475
1940.....	95.4	748	5.4	22	6.3	195	29.1	530
1941.....	104.3	896	6.5	34	7.3	213	31.9	560
1942.....	87.1	1,099	6.9	42	7.3	234	21.6	567
1943.....	55.8	1,407	7.5	49	6.2	269	15.6	530
1944.....	95.0	1,829	9.9	52	13.7	302	16.9	486
1945.....	116.4	1,696	12.5	65	12.1	334	15.6	499
1946.....	168.1	1,742	13.7	67	13.8	413	38.5	503
1947.....	255.5	1,967	18.4	58	32.8	520	71.0	645
1948.....	330.7	2,463	20.2	77	28.0	586	105.0	820
1949.....	401.2	2,495	18.0	69	26.0	590	122.0	901
1950.....	422.4	2,224	20.0	87	30.0	808	134.0	1,041
1951.....	402.0	— <sup>2</sup>	18.0	— <sup>2</sup>	34.0	— <sup>2</sup>	164.0	— <sup>2</sup>

1. Includes Newfoundland.

2. Not available.

TABLE 19. New Investment in Durable Physical Assets and Repair and Maintenance, Agriculture, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	19.8	69.2	89.0	12.6	20.6	33.2	32.4	89.8	122.2
1927	20.4	88.6	109.0	12.9	24.1	37.0	33.3	112.7	146.0
1928	22.7	116.2	138.9	14.2	26.1	40.3	36.9	142.3	179.2
1929	21.1	100.3	121.4	13.1	26.2	39.3	34.2	126.5	160.7
1930	14.1	72.0	86.1	10.2	27.8	38.0	24.3	99.8	124.1
1931	9.6	26.7	36.3	7.5	22.2	29.7	17.1	48.9	66.0
1932	5.3	23.4	28.7	8.2	22.1	30.3	13.5	45.5	59.0
1933	3.7	15.5	19.2	8.9	17.4	26.3	12.6	32.9	45.5
1934	5.5	30.6	36.1	9.8	22.1	31.9	15.3	52.7	68.0
1935	6.6	34.4	41.0	9.6	22.2	31.8	16.2	56.6	72.8
1936	8.6	44.2	52.8	10.3	25.7	36.0	18.9	69.9	88.8
1937	10.6	82.9	93.5	10.1	32.7	42.8	20.7	95.6	116.3
1938	10.0	67.4	77.4	10.7	35.7	46.4	20.7	103.1	123.8
1939	11.7	63.0	74.7	10.8	35.4	46.2	22.5	98.4	120.9
1940	12.8	82.6	95.4	12.4	41.3	53.7	25.2	123.9	149.1
1941	15.9	88.4	104.3	15.6	44.7	60.3	31.5	133.1	164.6
1942	15.6	71.5	87.1	21.3	46.3	67.6	36.9	117.8	154.7
1943	16.4	39.4	55.8	26.8	46.2	73.0	43.2	85.6	128.8
1944	22.1	72.9	95.0	30.1	48.7	78.8	52.2	121.6	173.8
1945	26.0	90.4	116.4	28.0	52.1	80.1	54.0	142.5	196.5
1946	36.5	131.6	168.1	26.5	60.0	86.5	63.0	191.6	254.6
1947	40.6	214.9	255.5	27.3	70.9	98.2	67.9	285.8	353.7
1948	50.2	280.5	330.7	33.0	80.2	113.2	83.2	360.7	443.9
1949	51.2	350.0	401.2	33.3	83.0	116.3	84.5	433.0	517.5
1950	52.4	370.0	422.4	33.5	84.9	118.4	85.9	454.9	540.8
1951	49.0	353.0	402.0	33.0	86.0	119.0	82.0	439.0	521.0

TABLE 20. New Investment in Durable Physical Assets and Repair and Maintenance, Fishing Industry, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment	Repair and Maintenance	Total
	Machinery and Equipment <sup>1</sup>	Machinery and Equipment <sup>1</sup>	
1926	8.4	2.9	11.3
1927	8.3	3.2	11.5
1928	5.5	3.1	8.6
1929	8.6	3.4	12.0
1930	5.7	3.3	9.0
1931			
1932	3.2	2.6	5.8
1933	3.8	2.5	6.3
1934	5.4	2.5	7.9
1935	5.7	2.6	8.3
	5.0	2.6	7.6
1936	5.8	2.7	8.5
1937	5.1	2.7	7.8
1938	4.9	2.7	7.6
1939	4.4	2.6	7.0
1940	5.4	2.6	8.0
1941			
1942	6.5	2.8	9.3
1943	6.9	2.9	9.8
1944	7.5	3.1	10.6
1945	9.9	3.5	13.4
	12.5	4.1	16.6
1946			
1947	13.7	4.7	18.4
1948	18.4	5.9	24.3
1949	20.2	6.7	26.9
1950	18.0	4.0	22.0
1951	20.0	4.1	24.1
	18.0	4.0	22.0

1. Includes small amounts of expenditures on construction for such installations as piers and wharves.



**TABLE 21. New Investment in Durable Physical Assets and Repair and Maintenance, Primary Woods Operations, Canada, 1926-1951**  
(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	3.0	3.1	6.1	2.7	6.2	8.9	5.7	9.3	15.0
1927.....	3.0	3.1	6.1	2.7	6.2	8.9	5.7	9.3	15.0
1928.....	3.2	3.3	6.5	2.8	6.5	9.3	6.0	9.8	15.8
1929.....	3.3	3.4	6.7	2.9	6.7	9.6	6.2	10.1	16.3
1930.....	2.9	3.0	5.9	2.6	5.9	8.5	5.5	8.9	14.4
1931.....									
1931.....	1.8	1.9	3.7	1.6	3.7	5.3	3.4	5.6	9.0
1932.....	1.1	1.1	2.2	1.0	2.2	3.2	2.1	3.3	5.4
1933.....	1.2	1.2	2.4	1.1	2.5	3.6	2.3	3.7	6.0
1934.....	1.4	1.5	2.9	1.3	2.9	4.2	2.7	4.4	7.1
1935.....	1.6	1.6	3.2	1.4	3.2	4.6	3.0	4.8	7.8
1936.....									
1936.....	2.0	2.0	4.0	1.7	4.0	5.7	3.7	6.0	9.7
1937.....	2.5	2.6	5.1	2.2	5.1	7.3	4.7	7.7	12.4
1938.....	2.2	2.3	4.5	2.0	4.5	6.5	4.2	6.8	11.0
1939.....	2.4	2.5	4.9	2.1	4.9	7.0	4.5	7.4	11.9
1940.....	3.1	3.2	6.3	2.8	6.3	9.1	5.9	9.5	15.4
1941.....									
1941.....	1.7	5.6	7.3	3.2	7.3	10.5	4.9	12.9	17.8
1942.....	3.1	4.2	7.3	3.0	6.9	9.9	6.1	11.1	17.2
1943.....	3.0	3.2	6.2	2.3	5.1	7.4	5.3	8.3	13.6
1944.....	8.6	5.1	13.7	3.5	7.9	11.4	12.1	13.0	25.1
1945.....	6.2	5.9	12.1	3.4	7.7	11.1	9.6	13.6	23.2
1946.....									
1946.....	6.5	7.3	13.8	4.0	7.7	11.7	10.5	15.0	25.5
1947.....	15.4	17.4	32.8	5.2	14.0	19.2	20.6	31.4	52.0
1948.....	14.0	14.0	28.0	6.0	15.0	21.0	20.0	29.0	49.0
1949.....	16.0	10.0	26.0	6.0	21.0	27.0	22.0	31.0	53.0
1950.....	14.0	16.0	30.0	8.0	18.0	26.0	22.0	34.0	56.0
1951.....	19.0	15.0	34.0	8.0	18.0	26.0	27.0	33.0	60.0

**TABLE 22. New Investment in Durable Physical Assets and Repair and Maintenance, Primary Mining Industries, Canada, 1926-1951**  
(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	8.6	8.4	17.0	1.9	7.4	9.3	10.5	15.8	26.3
1927.....	8.2	9.8	18.0	1.9	7.6	9.5	10.1	17.4	27.5
1928.....	20.1	12.0	32.1	2.1	8.5	10.6	22.2	20.5	42.7
1929.....	26.1	20.1	46.2	2.4	9.6	12.0	28.5	29.7	58.2
1930.....	31.0	14.4	45.4	2.2	8.7	10.9	33.2	23.1	56.3
1931.....									
1931.....	15.6	6.4	22.0	1.8	7.1	8.9	17.4	13.5	30.9
1932.....	3.2	4.1	7.3	1.5	5.9	7.4	4.7	10.0	14.7
1933.....	5.3	3.4	8.7	1.7	6.8	8.5	7.0	10.2	17.2
1934.....	5.2	6.2	11.4	2.2	8.6	10.8	7.4	14.8	22.2
1935.....	24.7	6.6	31.3	2.4	9.7	12.1	27.1	16.3	43.4
1936.....									
1936.....	21.5	9.6	31.1	2.8	11.2	14.0	24.3	20.8	45.1
1937.....	19.3	15.1	34.4	3.6	14.1	17.7	21.9	29.2	51.1
1938.....	19.5	14.1	33.6	3.4	13.7	17.1	22.9	27.8	50.7
1939.....	16.5	14.2	30.7	3.7	14.7	18.4	20.2	28.9	49.1
1940.....	13.5	15.6	29.1	4.1	16.4	20.5	17.6	32.0	49.6
1941.....									
1941.....	14.8	17.1	31.9	5.0	19.9	24.9	19.8	37.0	56.8
1942.....	9.5	12.1	21.6	3.9	15.7	19.6	13.4	27.8	41.2
1943.....	8.0	7.6	15.6	4.2	16.5	20.7	12.2	24.1	36.3
1944.....	8.7	8.2	16.9	4.4	17.6	22.0	13.1	25.8	38.9
1945.....	9.7	5.9	15.6	4.2	16.8	21.0	13.9	22.7	36.6
1946.....									
1946.....	25.0	13.5	38.5	8.6	34.4	43.0	33.6	47.9	81.5
1947.....	31.5	39.5	71.0	9.3	30.5	39.8	40.8	70.0	110.8
1948.....	55.0	50.0	105.0	9.0	36.0	45.0	64.0	86.0	150.0
1949.....	54.0	54.0	108.0	16.0	39.0	55.0	84.0	93.0	177.0
1950.....	68.0	66.0	134.0	7.0	41.0	48.0	75.0	107.0	182.0
1951.....	85.0	79.0	164.0	7.0	42.0	49.0	92.0	121.0	213.0

TABLE 23. New Investment in Durable Physical Assets and Repair and Maintenance, Construction Industry, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	2.0	12.4	14.4	0.5	9.4	9.9	2.5	21.8	24.3
1927	2.1	13.2	15.3	0.5	9.4	9.9	2.6	22.6	25.2
1928	3.5	21.5	25.0	0.8	13.6	14.4	4.3	35.1	39.4
1929	4.5	28.0	32.5	1.0	17.0	18.0	5.5	45.0	50.5
1930	3.9	24.0	27.9	1.0	16.4	17.4	4.9	40.4	45.3
1931	1.5	9.1	10.6	0.4	6.9	7.3	1.9	16.0	17.9
1932	0.6	3.4	4.0	0.2	2.9	3.1	0.8	6.3	7.1
1933	0.2	1.5	1.7	0.1	1.4	1.5	0.3	2.9	3.2
1934	0.3	2.0	2.3	0.1	1.8	1.9	0.4	3.8	4.2
1935	1.0	5.9	6.9	0.3	4.6	4.9	1.3	10.5	11.8
1936	1.0	6.0	7.0	0.3	4.5	4.8	1.3	10.5	11.8
1937	1.6	10.1	11.7	0.4	7.3	7.7	2.0	17.4	19.4
1938	1.3	8.0	9.3	0.3	5.6	5.9	1.6	13.6	15.2
1939	1.5	9.3	10.8	0.4	8.3	8.7	1.9	17.6	19.5
1940	1.7	10.4	12.1	0.6	10.9	11.5	2.3	21.3	23.6
1941	2.3	14.3	16.6	0.8	13.4	14.2	3.1	27.7	30.8
1942	3.4	21.4	24.8	1.1	18.8	19.9	4.5	40.2	44.7
1943	3.2	19.7	22.9	0.9	15.4	16.3	4.1	35.1	39.2
1944	2.6	16.4	19.0	0.5	8.6	9.1	3.1	25.0	28.1
1945	4.2	26.3	30.5	0.7	12.7	13.4	4.9	39.0	43.9
1946	4.6	28.5	33.1	1.2	21.3	22.5	5.8	49.8	55.6
1947	3.1	48.6	51.7	1.1	26.9	28.0	4.2	75.5	79.7
1948	8.0	51.0	59.0	2.0	31.0	33.0	10.0	82.0	92.0
1949	12.0	43.0	55.0	3.0	45.0	48.0	15.0	89.0	104.0
1950	12.0	50.0	62.0	3.0	37.0	40.0	15.0	87.0	102.0
1951	9.0	31.0	40.0	3.0	34.0	37.0	12.0	65.0	77.0

1. Includes Newfoundland.

TABLE 24. New Investment in Durable Physical Assets and Repair and Maintenance, and Gross and Net Value of Production, All Manufacturing Industries, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment	Repair and Maintenance	New Investment, Repair and Maintenance	Gross Value of Production	Net Value of Production
1926	221.8	68.2	290.0	3,100.6	1,305.2
1927	281.6	70.2	351.8	3,257.2	1,427.6
1928	324.9	70.9	395.8	3,582.3	1,597.9
1929	374.3	81.2	455.5	3,883.4	1,755.4
1930	277.3	60.2	337.5	3,280.2	1,522.7
1931	157.1	60.3	217.4	2,555.1	1,252.0
1932	82.6	41.5	124.1	1,980.5	956.0
1933	42.0	39.6	81.6	1,954.1	919.7
1934	49.9	48.8	98.7	2,393.7	1,087.3
1935	66.6	51.5	118.1	2,653.9	1,153.5
1936	83.0	62.0	145.0	3,002.4	1,289.6
1937	140.4	73.5	213.9	3,625.5	1,508.9
1938	115.2	63.1	178.3	3,337.7	1,428.3
1939	98.4	70.9	169.3	3,474.8	1,531.1
1940	247.1	111.0	358.1	4,529.2	1,942.5
1941	347.5	150.4	497.9	6,076.3	2,605.1
1942	366.5	187.7	554.2	7,553.8	3,310.0
1943	244.3	202.0	446.3	8,732.9	3,816.4
1944	211.4	234.2	445.6	9,073.7	4,015.8
1945	280.1	233.7	513.8	8,250.4	3,564.3
1946	337.2	221.1	558.3	8,035.7	3,467.0
1947	527.9	273.1	801.0	10,081.0	4,292.0
1948	579.0	332.8	911.8	11,876.8	4,940.4
1949	535.8	333.9	869.7	12,375.7	5,311.3 <sup>1</sup>
1950	519.4	345.4	864.8	13,979.0	6,029.0 <sup>1</sup>
1951	715.9	351.0	1,066.9	—	—

1. Preliminary.

2. Not available.

**TABLE 25. Number of Establishments, Employment, Volume of Production and Investment, All Manufacturing Industries, Canada, 1926-1951**

Year	Number of Establishments Thous.	Number of Employees Thous.	Indices <sup>1</sup>			
			Establishments	Employees	Volume of	
					Production	New Investment
1926	21.3	559	85.9	85.0	82.2	215.6
1927	21.5	595	86.7	90.4	82.9	279.2
1928	22.0	631	88.7	95.9	92.9	320.8
1929	22.2	667	89.5	101.4	96.8	361.5
1930	22.6	615	91.1	93.5	80.6	280.2
1931	23.1	529	93.1	80.4	69.6	166.7
1932	23.1	469	93.1	71.3	60.9	89.6
1933	23.8	469	96.0	71.3	65.7	46.9
1934	24.2	520	97.6	79.0	76.8	55.2
1935	24.0	557	96.8	84.7	80.6	74.0
1936	24.2	594	97.6	90.3	89.2	90.6
1937	24.8	660	100.0	100.3	100.9	139.6
1938	25.2	642	101.6	97.6	93.5	117.7
1939	24.8	658	100.0	100.0	100.0	100.0
1940	25.5	762	102.8	115.8	122.8	231.2
1941	26.3	961	106.0	146.0	152.3	296.9
1942	27.9	1,152	112.5	175.1	185.1	307.3
1943	27.7	1,241	111.7	188.6	201.6	185.4
1944	28.5	1,223	114.9	185.9	204.4	157.3
1945	29.0	1,119	116.9	170.1	177.8	208.3
1946	31.2	1,058	125.8	160.8	156.8	238.5
1947	32.7	1,132	131.9	172.0	173.3	326.0
1948	33.4	1,156	134.7	175.7	178.2	313.5
1949	34.5	1,159	139.1	176.1	179.8	279.2
1950	35.2	1,171	141.3	178.0	192.5	254.2
1951 <sup>2</sup>	—	—	—	—	—	324.0

1. Base: 1939 = 100.

2. Preliminary.

3. Not available.

**TABLE 26. New Investment in Durable Physical Assets and Repair and Maintenance, All Manufacturing Industries, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	55.7	166.1	221.8	11.0	57.2	68.2	66.7	223.3	290.0
1927	86.9	194.7	281.6	14.6	55.6	70.2	101.5	250.3	351.8
1928	121.7	203.2	324.9	14.0	56.9	70.9	135.7	260.1	395.8
1929	131.0	243.3	374.3	15.2	66.0	81.2	146.2	309.3	455.5
1930	75.5	201.8	277.3	13.7	46.5	60.2	89.2	248.3	337.5
1931	40.9	116.2	157.1	9.2	51.1	60.3	50.1	167.3	217.4
1932	19.3	63.3	82.6	6.4	35.1	41.5	25.7	98.4	124.1
1933	18.1	23.9	42.0	6.4	33.2	39.6	24.5	57.1	81.6
1934	19.5	30.4	49.9	6.5	42.3	48.8	26.0	72.7	98.7
1935	21.1	45.5	66.6	7.7	43.8	51.5	28.8	89.3	118.1
1936	37.6	45.4	83.0	15.1	46.9	62.0	52.7	92.3	145.0
1937	64.1	76.3	140.4	17.1	56.4	73.5	81.2	132.7	213.9
1938	44.8	70.4	115.2	16.4	46.7	63.1	61.2	117.1	178.3
1939	33.4	65.0	98.4	17.9	53.0	70.9	51.3	118.0	169.3
1940	66.7	180.4	247.1	25.6	85.4	111.0	92.3	265.8	358.1
1941	95.2	252.3	347.5	31.2	119.2	150.4	126.4	371.5	497.9
1942	137.3	249.2	386.5	45.5	142.2	187.7	182.6	391.4	574.2
1943	84.6	159.7	244.3	45.8	156.2	202.0	130.4	315.9	446.3
1944	61.3	150.1	211.4	60.7	173.5	234.2	122.0	323.6	445.6
1945	75.9	204.2	280.1	63.1	170.6	233.7	139.0	374.8	513.8
1946	132.2	205.0	337.2	56.8	164.3	221.1	189.0	369.3	558.3
1947	184.7	343.2	527.9	62.4	210.7	273.1	247.1	553.9	801.0
1948	184.8	394.2	579.0	78.9	253.9	332.8	263.7	648.1	911.8
1949	156.6	379.2	535.8	66.7	267.2	333.9	223.3	646.4	869.7
1950	145.2	374.2	519.4	75.4	270.0	345.4	220.6	644.2	864.8
1951	222.3	493.6	715.9	73.4	277.6	351.0	295.7	771.2	1,066.9

1. Includes Newfoundland.



TABLE 27. New Investment in Durable Physical Assets and Repair and Maintenance, Food and Beverage Industries, Canada, 1926-1951  
(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	2.7	80.9	83.6	4.9	4.0	8.9	7.6	84.9	92.5
1927	4.4	89.7	94.1	6.1	3.4	9.5	10.5	93.1	103.6
1928	9.6	96.6	106.2	3.2	5.6	8.8	12.8	102.2	115.0
1929	13.5	130.9	144.4	3.4	7.3	10.7	16.9	138.2	155.1
1930	7.4	100.0	107.4	5.4	5.3	10.7	12.8	105.3	118.1
1931	7.2	54.0	61.2	2.3	4.7	7.0	9.5	58.7	68.2
1932	4.9	31.0	35.9	1.8	4.2	6.0	6.7	35.2	41.9
1933	0.8	2.0	2.8	1.5	4.4	5.9	2.3	6.4	8.7
1934	1.6	3.7	5.3	1.7	4.6	6.3	3.3	8.3	11.6
1935	3.5	5.4	8.9	2.5	5.8	8.3	6.0	11.2	17.2
1936	5.3	5.5	10.8	6.0	3.4	9.4	11.3	8.9	20.2
1937	8.5	10.5	19.0	6.9	4.0	10.9	15.4	14.5	29.9
1938	7.8	11.8	19.6	7.3	3.4	10.7	15.1	15.2	30.3
1939	7.5	11.0	18.5	6.2	4.7	10.9	13.7	15.7	29.4
1940	10.7	12.4	23.1	7.8	5.5	13.3	18.5	17.9	36.4
1941	9.7	14.0	23.7	6.3	9.7	16.0	16.0	23.7	39.7
1942	8.5	10.9	19.4	11.8	11.4	23.2	20.3	22.3	42.6
1943	6.1	8.0	14.1	8.1	15.2	23.3	14.2	23.2	37.4
1944	10.7	11.4	22.1	8.5	21.2	29.7	19.2	32.6	51.8
1945	18.2	16.2	34.4	11.6	19.8	31.4	29.8	36.0	65.8
1946	24.7	28.4	53.1	12.3	20.5	32.8	37.0	48.9	85.9
1947	33.0	49.8	82.8	10.8	25.7	36.5	43.8	75.5	119.3
1948	31.9	56.5	88.4	13.2	28.6	41.8	45.1	85.1	130.2
1949	27.7	51.0	78.7	10.4	30.7	41.1	38.1	81.7	119.8
1950	27.7	52.1	79.8	10.5	29.9	40.4	38.2	82.0	120.2
1951	28.8	43.6	72.4	10.7	28.9	39.6	39.5	72.5	112.0

TABLE 28. New Investment in Durable Physical Assets and Repair and Maintenance, Rubber, Leather and Tobacco and Their Products Industries, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	0.8	1.4	2.2	0.5	2.9	3.4	1.3	4.3	5.6
1927	1.1	3.4	4.5	1.7	2.7	4.4	2.8	6.1	8.9
1928	2.9	2.9	5.8	1.7	3.1	4.8	4.6	6.0	10.6
1929	2.5	3.6	6.1	2.9	1.8	4.7	5.4	5.4	10.8
1930	2.1	2.2	4.3	0.4	2.4	2.8	2.5	4.6	7.1
1931	0.9	1.3	2.2	1.0	1.8	2.8	1.9	3.1	5.0
1932	0.4	1.1	1.5	0.4	1.5	1.9	0.9	2.6	3.4
1933	2.9	1.5	4.4	1.5	2.1	3.6	3.5	3.0	6.5
1934	0.4	1.5	1.9	0.6	1.9	2.5	1.0	3.4	4.4
1935	0.1	1.9	2.0	0.5	2.0	2.5	0.6	3.9	4.5
1936	16.4	5.3	21.7	0.5	2.2	2.7	16.9	7.5	24.4
1937	1.8	2.4	4.2	0.7	2.3	3.0	2.5	4.7	7.2
1938	0.8	2.5	3.3	0.3	2.0	2.3	1.1	4.5	5.6
1939	1.1	2.0	3.1	1.1	1.8	2.9	2.2	3.8	6.0
1940	2.7	2.3	5.0	1.6	1.9	3.5	4.3	4.2	8.5
1941	2.4	2.7	5.1	1.8	3.2	5.0	4.2	5.9	10.1
1942	2.4	1.8	4.2	2.7	3.3	6.0	5.1	5.1	10.2
1943	2.2	1.7	3.9	2.5	4.3	6.8	4.7	6.0	10.7
1944	2.3	2.7	5.0	6.6	3.0	9.6	8.9	5.7	14.6
1945	5.9	4.4	10.3	9.2	4.5	13.7	15.1	8.9	24.0
1946	6.7	6.1	12.8	2.7	6.7	9.4	9.4	12.8	22.2
1947	1.6	11.0	12.6	2.7	10.0	12.7	7.3	21.9	29.2
1948	3.5	8.6	12.1	2.4	8.5	10.9	5.9	17.1	23.0
1949	2.6	8.5	11.1	1.7	7.9	9.6	4.3	16.4	20.7
1950	2.7	6.8	9.5	1.8	7.8	9.6	4.5	14.6	19.1
1951	5.1	10.7	15.8	2.0	7.9	9.9	7.1	18.6	25.7

TABLE 29. New Investment in Durable Physical Assets and Repair and Maintenance, Primary Textiles and Their Products Industries, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926.....	4.7	2.5	7.2	0.3	3.4	3.7	5.0	5.9	10.9
1927.....	6.2	7.3	13.5	0.2	3.5	3.7	6.4	10.8	17.2
1928.....	0.6	7.9	8.5	0.3	3.6	3.9	0.9	11.5	12.4
1929.....	1.4	4.6	6.0	0.2	3.7	3.9	1.6	8.3	9.9
1930.....	6.8	3.1	9.9	0.2	3.0	3.2	7.0	6.1	13.1
1931.....	1.7	10.6	12.3	0.1	2.4	2.5	1.8	13.0	14.8
1932.....	1.0	2.7	3.7	0.1	2.5	2.6	1.1	5.2	6.3
1933.....	0.9	3.6	4.5	0.3	3.7	4.0	1.2	7.3	8.5
1934.....	0.6	4.8	5.4	0.5	4.6	5.1	1.1	9.4	10.5
1935.....	2.8	7.1	9.9	0.3	4.3	4.6	3.1	11.4	14.5
1936.....	1.3	5.3	6.6	0.4	3.6	4.0	1.7	8.9	10.6
1937.....	2.6	6.2	8.8	0.4	4.7	5.1	3.0	10.9	13.9
1938.....	1.4	5.0	6.4	0.6	3.8	4.4	2.0	8.8	10.8
1939.....	0.6	5.0	5.6	0.7	3.8	4.5	1.3	8.8	10.1
1940.....	3.4	10.2	13.6	0.6	6.9	7.5	4.0	17.1	21.1
1941.....	3.1	8.6	11.7	0.9	8.4	9.3	4.0	17.0	21.0
1942.....	1.5	4.9	6.4	1.1	9.3	10.4	2.6	14.2	16.8
1943.....	0.8	1.8	2.6	1.4	7.8	9.2	2.2	9.6	11.8
1944.....	1.8	4.9	6.7	2.8	7.6	10.4	4.6	12.5	17.1
1945.....	1.3	7.7	9.0	2.9	8.5	11.4	4.2	16.2	20.4
1946.....	8.4	16.2	24.6	3.3	10.2	13.5	11.7	26.4	38.1
1947.....	10.9	25.7	36.6	2.8	12.2	15.0	13.7	37.9	51.6
1948.....	6.5	29.1	35.6	3.9	14.2	18.1	10.4	43.3	53.7
1949.....	7.0	25.1	32.1	3.6	14.9	18.5	10.6	40.0	50.6
1950.....	5.8	18.0	23.8	3.0	15.6	18.6	8.8	33.6	42.4
1951.....	8.9	29.0	37.9	3.0	17.0	20.0	11.9	46.0	57.9

TABLE 30. New Investment in Durable Physical Assets and Repair and Maintenance, Clothing Industry, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926.....	2.0	1.5	3.5	0.1	1.1	1.2	2.1	2.6	4.7
1927.....	7.5	1.7	9.2	0.1	1.2	1.3	7.6	2.9	10.5
1928.....	10.8	1.5	12.3	0.1	2.2	2.3	10.9	3.7	14.6
1929.....	13.3	2.2	15.5	0.1	2.1	2.2	13.4	4.3	17.7
1930.....	0.8	1.0	1.8	0.1	1.6	1.7	0.9	2.6	3.5
1931.....	1.6	0.6	2.2	0.1	1.6	1.7	1.7	2.2	3.9
1932.....	1.3	0.5	1.8	0.1	1.9	2.0	1.4	2.4	3.8
1933.....	1.1	0.6	1.7	—	0.7	0.7	1.1	1.3	2.4
1934.....	0.4	0.8	1.2	—	1.2	1.2	0.4	2.0	2.4
1935.....	0.1	0.7	0.8	0.1	1.4	1.5	0.2	2.1	2.3
1936.....	0.8	1.1	1.9	0.2	1.7	1.9	1.0	2.8	3.8
1937.....	1.8	1.6	3.4	0.1	1.5	1.6	1.9	3.1	5.0
1938.....	0.4	1.0	1.4	0.1	1.5	1.6	0.5	2.5	3.0
1939.....	1.4	1.9	3.3	0.4	2.6	3.0	1.8	4.5	6.3
1940.....	2.4	1.7	4.1	0.4	2.7	3.1	2.8	4.4	7.2
1941.....	10.9	2.1	13.0	0.6	3.3	3.9	11.5	5.4	16.9
1942.....	3.0	1.1	4.1	0.3	3.1	3.4	3.3	4.2	7.5
1943.....	1.6	1.2	2.8	0.7	2.8	3.5	2.3	4.0	6.3
1944.....	2.8	1.1	3.9	3.8	3.3	7.1	6.6	4.4	11.0
1945.....	9.2	4.4	13.6	2.1	3.1	5.2	11.3	7.5	18.8
1946.....	2.6	5.8	8.4	2.2	3.8	6.0	4.8	9.6	14.4
1947.....	3.7	10.3	14.0	1.9	4.7	6.6	5.6	15.0	20.6
1948.....	2.1	10.2	12.3	2.2	4.8	7.0	4.3	15.0	19.3
1949.....	3.0	10.7	13.7	1.9	4.9	6.8	4.9	15.6	20.5
1950.....	2.5	9.7	12.2	1.5	4.7	6.2	4.0	14.4	18.4
1951.....	3.7	8.2	11.9	1.6	4.8	6.4	5.3	13.0	18.3

TABLE 31. New Investment in Durable Physical Assets and Repair and Maintenance, Wood and Its Products Industries, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	3.3	4.4	7.7	0.4	18.2	19.2	3.7	23.2	26.9
1927	21.5	6.2	27.7	0.3	7.6	7.9	21.8	13.8	35.6
1928	7.4	3.7	11.1	1.0	10.2	11.2	8.4	13.9	22.3
1929	10.2	2.8	13.0	2.3	5.7	8.0	12.5	8.5	21.0
1930	5.9	4.2	10.1	2.4	3.3	5.7	8.3	7.5	15.8
1931	1.0	2.2	3.2	1.1	8.2	9.3	2.1	10.4	12.5
1932	4.4	1.5	5.9	1.1	6.6	7.7	5.5	8.1	13.6
1933	7.0	1.5	8.5	0.5	6.6	7.1	7.5	3.1	15.6
1934	4.4	1.2	5.6	0.7	7.6	8.3	5.1	8.8	13.9
1935	1.0	2.2	3.2	0.9	4.9	5.8	1.9	7.1	9.0
1936	2.8	1.5	4.3	0.8	4.6	5.4	3.6	6.1	9.7
1937	14.1	3.6	17.7	1.3	7.8	9.1	15.4	11.4	26.8
1938	1.2	2.6	3.8	1.8	10.5	12.3	3.0	13.1	16.1
1939	4.9	1.8	6.7	2.7	8.2	10.9	7.6	10.0	17.6
1940	8.0	3.1	11.1	3.5	15.8	19.3	11.5	18.9	30.4
1941	10.8	6.3	17.1	3.6	15.7	19.3	14.4	22.0	36.4
1942	11.3	4.1	15.4	5.6	13.5	19.1	16.9	17.6	34.5
1943	10.8	3.6	14.4	3.6	13.8	17.4	20.4	17.4	37.8
1944	2.9	2.4	5.3	4.6	13.5	18.1	7.5	15.9	23.4
1945	1.6	3.6	5.2	5.3	15.2	20.5	6.9	18.8	25.7
1946	10.9	9.5	20.4	5.7	12.2	17.9	16.6	21.7	38.3
1947	11.4	20.7	32.1	6.5	15.6	22.1	17.9	36.3	54.2
1948	7.9	18.5	26.4	7.1	18.9	26.0	15.0	37.4	52.4
1949	7.5	19.2	26.7	5.7	18.2	23.9	13.2	37.4	50.6
1950	8.2	16.2	24.4	4.8	17.5	22.3	13.0	33.7	46.7
1951	8.7	14.2	22.9	4.8	16.5	21.3	13.5	30.7	44.2

TABLE 32. New Investment in Durable Physical Assets and Repair and Maintenance, Pulp and Paper and Their Products Industries, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	21.4	22.5	43.9	0.3	10.1	10.4	21.7	32.6	54.3
1927	23.7	23.7	47.4	1.1	17.0	18.1	24.8	40.7	65.5
1928	31.8	17.2	49.0	1.5	12.6	14.1	33.3	29.8	63.1
1929	16.0	9.6	25.6	0.2	25.0	25.2	16.2	34.6	50.8
1930	4.4	20.8	25.2	1.2	17.0	18.2	5.6	37.8	43.4
1931	11.3	1.9	13.2	0.1	20.7	20.8	11.4	22.6	34.0
1932	2.1	1.2	3.3	0.1	10.1	10.2	2.2	11.3	13.5
1933	0.1	0.7	0.8	0.1	6.8	6.9	0.2	7.5	7.7
1934	0.8	2.7	3.5	0.2	10.4	10.6	1.0	13.1	14.1
1935	2.2	2.4	4.6	0.4	11.4	11.8	2.6	13.8	16.4
1936	1.5	3.6	5.1	0.6	11.9	12.5	2.1	15.5	17.6
1937	4.2	6.4	10.6	1.2	16.0	17.2	5.4	22.4	27.8
1938	2.6	4.6	7.2	0.5	7.0	7.5	3.1	11.6	14.7
1939	3.9	2.2	6.1	0.9	12.4	13.3	4.8	14.6	19.4
1940	5.1	9.8	14.9	1.4	20.6	22.0	6.5	30.4	36.9
1941	8.8	5.6	14.4	1.3	20.6	21.9	10.1	26.2	36.3
1942	3.8	9.6	13.4	1.7	27.1	28.8	5.5	36.7	42.2
1943	1.7	5.1	6.8	1.5	24.9	26.4	3.2	30.0	33.2
1944	8.0	6.7	14.7	1.9	32.3	34.2	9.9	39.0	48.9
1945	5.8	10.8	16.6	1.9	34.7	36.6	7.7	45.5	53.2
1946	27.2	27.3	54.5	5.3	28.4	33.7	32.5	56.2	88.7
1947	31.2	49.6	80.8	6.4	37.3	43.7	37.6	87.1	124.7
1948	29.1	60.4	89.5	4.7	47.0	51.7	36.1	107.7	143.8
1949	26.0	54.7	80.7	8.7	51.1	59.8	35.5	105.8	141.3
1950	21.1	51.2	72.3	8.4	47.9	56.3	29.5	89.1	128.6
1951	20.2	76.1	96.3	8.2	49.3	57.5	28.4	125.4	153.8



**TABLE 33. New Investment in Durable Physical Assets and Repair and Maintenance, Printing, Publishing and Allied Industries, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	0.8	4.1	4.9	0.2	2.0	2.2	1.0	6.1	7.1
1927	0.5	3.3	3.8	0.2	1.7	1.9	0.7	5.0	5.7
1928	9.4	6.8	16.2	0.1	2.2	2.3	9.5	9.0	18.5
1929	7.5	8.2	15.7	0.1	1.8	1.9	7.6	10.0	17.6
1930	0.2	4.5	4.7	0.1	1.6	1.7	0.3	6.1	6.4
1931	0.3	2.8	3.1	0.2	1.2	1.4	0.5	4.0	4.5
1932	0.7	2.1	2.8	0.1	1.4	1.5	0.8	3.5	4.3
1933	0.3	0.9	1.2	0.2	0.8	1.0	0.5	1.7	2.2
1934	—	0.9	0.9	0.3	0.5	0.8	0.3	1.4	1.7
1935	0.6	5.5	6.1	0.2	0.9	1.1	0.8	6.4	7.2
1936	—	1.7	1.7	0.3	1.2	1.5	0.3	2.9	3.2
1937	1.2	2.7	3.9	0.3	1.2	1.5	1.5	3.9	5.4
1938	0.6	3.2	3.8	0.3	1.4	1.7	0.9	4.6	5.5
1939	0.3	5.7	6.0	0.4	1.7	2.1	0.7	7.4	8.1
1940	0.6	4.2	4.8	0.4	1.8	2.2	1.0	6.0	7.0
1941	—	2.6	2.6	0.5	2.7	3.2	0.5	5.3	5.8
1942	0.3	2.0	2.3	0.4	2.5	2.9	0.7	4.5	5.2
1943	0.2	1.2	1.4	0.6	3.7	4.3	0.8	4.9	5.7
1944	0.2	2.2	2.4	0.6	3.9	4.5	0.8	6.1	6.9
1945	3.9	2.1	6.0	0.8	5.1	5.9	4.7	7.2	11.9
1946	2.9	4.4	7.3	1.3	2.4	3.7	4.2	6.8	11.0
1947	5.4	8.4	13.8	1.6	3.2	4.8	7.0	11.6	18.6
1948	7.0	12.4	19.4	1.6	3.9	5.5	8.6	16.3	24.9
1949	6.3	13.5	20.1	1.4	3.9	5.3	7.7	17.7	25.4
1950	5.2	15.0	20.2	1.4	3.5	4.9	6.6	18.5	25.1
1951	5.0	10.9	15.9	1.4	3.4	4.8	6.4	14.3	20.7

**TABLE 34. New Investment in Durable Physical Assets and Repair and Maintenance, Iron and Steel and Their Products Industries, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	4.3	4.1	8.4	0.6	5.4	6.0	4.9	9.5	14.4
1927	5.0	4.5	9.5	0.6	6.4	7.0	5.6	10.9	16.5
1928	4.8	7.3	12.1	1.2	4.3	5.5	6.0	11.6	17.6
1929	8.3	9.8	18.1	1.1	5.4	6.5	9.4	15.2	24.6
1930	12.5	5.0	17.5	0.8	4.9	5.7	13.3	9.9	23.2
1931	4.7	5.0	9.7	0.4	2.6	3.0	5.1	7.6	12.7
1932	0.5	1.6	2.1	0.2	2.0	2.2	0.7	3.6	4.3
1933	0.6	1.2	1.8	0.5	2.4	2.9	1.1	3.6	4.7
1934	2.5	2.4	4.9	0.6	2.9	3.5	3.1	5.3	8.4
1935	2.4	2.6	5.0	0.6	3.2	3.8	3.0	5.8	8.8
1936	3.1	2.8	5.9	0.9	4.0	4.9	4.0	6.8	10.8
1937	10.0	8.3	18.3	1.0	4.6	5.6	11.0	12.9	23.9
1938	5.0	5.2	10.2	0.7	3.8	4.5	5.7	9.0	14.7
1939	4.3	5.1	9.4	0.7	3.7	4.4	5.0	8.8	13.8
1940	4.9	15.1	20.0	1.3	5.4	6.7	6.2	20.5	26.7
1941	9.9	32.0	41.9	4.0	15.4	19.4	13.9	47.4	61.3
1942	7.2	37.5	44.7	5.3	20.8	26.1	12.5	58.3	70.8
1943	4.3	24.0	28.3	6.4	24.5	30.9	10.7	48.5	59.2
1944	10.1	22.2	32.3	6.5	26.2	32.7	16.6	48.4	65.0
1945	12.8	18.5	31.3	7.7	24.6	32.3	20.5	43.1	63.6
1946	14.9	22.0	36.9	8.4	22.8	31.2	23.3	44.8	68.1
1947	16.0	38.9	54.9	10.1	32.4	42.5	26.1	71.3	97.4
1948	19.6	36.7	56.3	12.0	38.4	50.4	31.6	75.1	106.7
1949	14.6	37.7	52.3	12.4	38.9	51.3	27.0	76.6	103.6
1950	17.0	37.2	54.2	9.2	43.0	52.2	26.2	80.2	106.4
1951	44.1	84.3	128.4	11.0	44.9	55.9	55.1	129.2	184.3

**TABLE 35. New Investment in Durable Physical Assets and Repair and Maintenance, Transportation Equipment Industry, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	0.8	1.1	1.9	1.1	1.0	2.1	1.9	2.1	4.0
1927	4.8	2.8	7.6	1.1	1.8	2.9	5.9	4.6	10.5
1928	7.0	6.2	13.2	1.7	2.8	4.5	8.7	9.0	17.7
1929	8.3	5.6	13.9	1.9	3.5	5.4	10.2	9.1	19.3
1930	1.8	3.3	5.1	1.5	1.7	3.2	3.3	5.0	8.3
1931	0.3	2.5	2.8	1.5	1.5	3.0	1.8	4.0	5.8
1932	0.2	2.1	2.3	0.3	0.6	0.9	0.5	2.1	3.2
1933	0.6	1.6	2.2	0.3	0.6	0.9	0.9	2.2	3.1
1934	2.1	1.3	3.4	0.3	0.6	0.9	2.4	1.9	4.3
1935	2.4	2.8	5.2	0.7	0.9	1.6	3.1	3.7	6.8
1936	0.9	2.4	3.3	2.2	5.7	7.9	3.1	8.1	11.2
1937	5.2	5.2	10.4	2.3	6.7	9.0	7.5	11.9	19.4
1938	14.5	6.3	20.8	2.1	6.3	8.4	16.6	12.6	29.2
1939	2.9	4.5	7.4	2.2	5.5	7.7	5.1	10.0	15.1
1940	3.4	8.0	11.4	2.5	8.1	10.6	5.9	16.1	22.0
1941	3.0	8.9	11.9	3.9	15.2	19.1	6.9	24.1	31.0
1942	27.9	17.6	45.5	5.1	20.5	25.6	33.0	38.1	71.1
1943	6.6	13.5	20.1	7.6	23.0	30.6	14.2	36.5	50.7
1944	1.6	4.7	6.3	11.0	20.8	31.8	12.6	25.5	38.1
1945	2.2	8.6	10.8	8.1	17.2	25.3	10.3	25.8	36.1
1946	5.4	10.3	15.7	3.7	14.4	18.1	9.1	24.7	33.8
1947	5.2	8.9	14.1	3.1	14.2	17.3	8.3	23.1	31.4
1948	5.4	10.0	15.4	5.3	16.8	22.1	10.7	26.8	37.5
1949	6.7	15.3	22.0	5.3	20.2	25.5	12.0	35.5	47.5
1950	18.5	25.8	44.3	5.5	19.4	24.9	24.0	45.2	69.2
1951	21.2	26.7	47.9	5.3	19.4	24.7	26.5	46.1	72.6

**TABLE 36. New Investment in Durable Physical Assets and Repair and Maintenance, Non-Ferrous Metals and Products Industries, Including Electrical Apparatus and Supplies, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	2.6	4.8	7.4	0.1	1.7	1.8	2.7	6.5	9.2
1927	1.9	3.9	5.8	0.2	1.9	2.1	2.1	5.8	7.9
1928	1.5	4.0	5.5	0.2	2.0	2.2	1.7	6.0	7.7
1929	3.5	4.9	8.4	0.2	1.4	1.6	3.7	6.3	10.0
1930	1.8	7.5	9.3	0.1	1.4	1.5	1.9	8.9	10.8
1931	1.0	4.7	5.7	0.1	0.9	1.0	1.1	5.6	6.7
1932	0.6	3.2	3.8	—	0.4	0.4	0.6	3.6	4.2
1933	0.4	1.0	1.4	0.1	1.8	1.9	0.5	2.8	3.3
1934	0.6	1.5	2.1	0.3	2.1	2.4	0.9	3.6	4.5
1935	0.8	1.8	2.6	0.3	2.4	2.7	1.1	4.2	5.3
1936	0.7	2.9	3.6	0.3	2.3	2.6	1.0	5.2	6.2
1937	0.8	9.3	10.1	0.3	2.9	3.2	1.1	12.2	13.3
1938	1.3	7.8	9.1	0.7	1.7	2.4	2.0	9.5	11.5
1939	0.4	7.2	7.6	0.7	2.6	3.3	1.1	9.8	10.9
1940	15.7	8.6	24.3	1.9	6.2	8.1	17.6	14.8	32.4
1941	26.0	20.6	46.6	2.3	10.9	13.2	28.3	31.5	59.8
1942	59.2	16.8	76.0	4.8	14.6	19.4	64.0	31.4	95.4
1943	36.2	6.5	42.7	4.7	20.8	25.5	40.9	27.3	68.2
1944	14.7	6.3	21.0	6.9	21.6	28.5	21.6	27.9	49.5
1945	1.5	9.2	10.7	5.3	17.9	23.2	6.8	27.1	33.9
1946	5.3	14.0	19.3	4.3	17.2	21.5	9.6	31.2	40.8
1947	12.0	19.1	31.1	6.7	23.5	30.2	18.7	42.6	61.3
1948	13.7	28.7	42.4	10.0	34.6	44.6	23.7	63.3	87.0
1949	15.2	30.3	45.5	6.4	31.7	38.1	21.6	62.0	83.6
1950	11.5	25.5	37.0	12.1	40.1	52.2	23.6	65.6	89.2
1951	22.7	29.1	51.8	7.3	41.0	48.3	30.0	70.1	100.1

**TABLE 37. New Investment in Durable Physical Assets and Repair and Maintenance, Non-Metallic Minerals and Products Industries, Including Products of Petroleum and Coal, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926.....	6.7	2.0	8.7	1.5	5.6	7.1	8.2	7.6	15.8
1927.....	6.0	3.2	9.2	1.8	6.8	8.6	7.8	10.0	17.8
1928.....	32.0	3.2	35.2	1.7	6.3	8.0	33.7	9.5	43.2
1929.....	32.7	4.0	36.7	1.5	5.7	7.2	34.2	9.7	43.9
1930.....	27.2	3.7	30.9	0.5	1.8	2.3	27.7	5.5	33.2
1931.....	8.2	3.5	11.7	0.9	3.2	4.1	9.1	6.7	15.8
1932.....	2.1	1.7	3.8	0.6	2.4	3.0	2.7	4.1	6.8
1933.....	2.0	1.3	3.3	0.8	2.9	3.7	2.8	4.2	7.0
1934.....	3.3	1.5	4.8	0.8	3.1	3.9	4.1	4.6	8.7
1935.....	3.6	1.4	5.0	0.9	3.5	4.4	4.5	4.9	9.4
1936.....	3.6	1.3	4.9	1.2	4.6	5.8	4.8	5.9	10.7
1937.....	7.0	1.8	8.8	0.7	2.7	3.4	7.7	4.5	12.2
1938.....	5.3	2.0	7.3	0.7	2.6	3.3	6.0	4.6	10.6
1939.....	4.4	2.3	6.7	0.7	2.6	3.3	5.1	4.9	10.0
1940.....	6.4	2.7	9.1	1.7	6.2	7.9	8.1	8.9	17.0
1941.....	5.3	3.2	8.5	2.1	7.6	9.7	7.4	10.8	18.2
1942.....	3.9	3.2	7.1	2.3	8.5	10.8	6.2	11.7	17.9
1943.....	3.7	3.4	7.1	2.3	8.3	10.6	6.0	11.7	17.7
1944.....	3.5	2.5	6.0	2.8	10.1	12.9	6.3	12.6	18.9
1945.....	7.8	4.4	12.2	3.0	10.9	13.9	10.8	15.3	26.1
1946.....	8.7	8.8	17.5	3.8	13.6	17.4	12.5	22.4	34.9
1947.....	34.6	21.0	55.6	5.0	17.7	22.7	39.6	38.7	78.3
1948.....	40.4	30.4	70.8	8.9	19.6	28.5	49.3	50.0	99.3
1949.....	25.0	22.5	47.5	4.5	25.3	29.8	29.5	47.8	77.3
1950.....	14.0	29.7	43.7	11.0	21.0	32.0	25.0	50.7	75.7
1951.....	36.7	49.0	85.7	11.5	22.4	33.9	48.2	71.4	119.6

**TABLE 38. New Investment in Durable Physical Assets and Repair and Maintenance, Chemicals and Their Products Industries, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926.....	4.4	1.4	5.8	0.8	0.6	1.4	5.2	2.0	7.2
1927.....	2.4	3.5	5.9	1.0	1.0	2.0	3.4	4.5	7.9
1928.....	1.2	2.6	3.8	1.1	1.4	2.5	2.3	4.0	6.3
1929.....	10.9	5.2	16.1	1.1	1.9	3.0	12.0	7.1	19.1
1930.....	2.9	3.5	6.4	0.8	2.0	2.8	3.7	5.5	9.2
1931.....	1.8	2.3	4.1	1.3	1.7	3.0	3.1	4.0	7.1
1932.....	0.7	1.1	1.8	1.5	1.1	2.6	2.2	2.2	4.4
1933.....	1.0	2.9	3.9	1.4	0.6	2.0	2.4	3.5	5.9
1934.....	2.4	1.6	4.0	0.4	2.3	2.7	2.8	3.9	6.7
1935.....	1.1	2.0	3.1	0.2	2.6	2.8	1.3	4.6	5.9
1936.....	0.4	2.3	2.7	1.5	1.2	2.7	1.9	3.5	5.4
1937.....	5.5	2.0	7.5	1.6	1.4	3.0	7.1	3.4	10.5
1938.....	2.9	3.4	6.3	1.0	2.2	3.2	3.9	5.6	9.5
1939.....	1.0	2.4	3.4	0.9	2.8	3.7	1.9	5.2	7.1
1940.....	1.9	4.5	6.4	2.1	3.4	5.5	4.0	7.9	11.9
1941.....	3.2	8.9	12.1	3.4	5.2	8.6	6.6	14.1	20.7
1942.....	5.3	4.7	10.0	3.7	6.0	9.7	9.0	10.7	19.7
1943.....	2.5	3.1	5.6	5.7	5.4	11.1	8.2	8.5	16.7
1944.....	1.4	1.6	3.0	3.7	6.1	11.8	5.1	9.7	14.8
1945.....	4.0	3.6	7.6	4.2	7.2	11.4	8.2	10.8	19.0
1946.....	11.6	8.0	19.6	2.9	10.3	13.2	14.5	12.3	26.8
1947.....	14.4	19.3	33.7	4.0	12.5	16.5	18.4	31.8	50.2
1948.....	15.0	26.9	41.9	4.3	15.8	20.1	19.3	42.7	62.0
1949.....	11.9	25.9	37.2	3.9	17.3	21.2	15.8	43.2	59.0
1950.....	9.3	23.5	32.8	5.5	17.3	22.8	14.8	40.8	55.6
1951.....	13.9	35.7	49.6	5.9	19.8	25.7	19.8	55.5	75.3



TABLE 39. New Investment in Durable Physical Assets and Repair and Maintenance, Miscellaneous Manufacturing Industries, Including an Allowance for Capital Items Charged to Operating Expenses in All Manufacturing Industries, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	1.2	35.4	36.6	0.2	0.6	0.8	1.4	36.0	37.4
1927.....	1.9	41.5	43.4	0.2	0.6	0.8	2.1	42.1	44.2
1928.....	2.7	43.3	46.0	0.2	0.6	0.8	2.9	43.9	46.8
1929.....	2.9	51.9	54.8	0.2	0.7	0.9	3.1	52.6	55.7
1930.....	1.7	43.0	44.7	0.2	0.5	0.7	1.9	43.5	45.4
1931.....	0.9	24.8	25.7	0.1	0.6	0.7	1.0	25.4	26.4
1932.....	0.4	13.5	13.9	0.1	0.4	0.5	0.5	13.9	14.4
1933.....	0.4	5.1	5.5	0.1	0.4	0.5	0.5	5.5	6.0
1934.....	0.4	6.5	6.9	0.1	0.5	0.6	0.5	7.0	7.5
1935.....	0.5	9.7	10.2	0.1	0.5	0.6	0.6	10.2	10.8
1936.....	0.8	9.7	10.5	0.2	0.5	0.7	1.0	10.2	11.2
1937.....	1.4	16.3	17.7	0.3	0.6	0.9	1.7	16.9	18.6
1938.....	1.0	15.0	16.0	0.3	0.5	0.8	1.3	15.5	16.8
1939.....	0.7	13.9	14.6	0.3	0.6	0.9	1.0	14.5	15.5
1940.....	1.5	97.8	99.3	0.4	0.9	1.3	1.9	98.7	100.6
1941.....	2.1	136.8	138.9	0.5	1.3	1.8	2.6	138.1	140.7
1942.....	3.0	135.0	138.0	0.7	1.6	2.3	3.7	136.6	140.3
1943.....	1.9	86.6	88.5	0.7	1.7	2.4	2.6	86.3	90.9
1944.....	1.3	81.4	82.7	1.0	1.9	2.9	2.3	83.3	85.6
1945.....	1.7	110.7	112.4	1.0	1.9	2.9	2.7	112.6	115.3
1946.....	2.9	43.7	46.6	0.9	1.8	2.7	3.8	45.5	49.3
1947.....	2.3	59.4	61.7	0.8	1.7	2.5	3.1	61.1	64.2
1948.....	2.7	65.8	68.5	1.0	2.5	3.5	3.7	68.3	72.0
1949.....	2.3	64.5	66.8	0.8	2.2	3.0	3.1	66.7	69.8
1950.....	1.7	63.5	65.2	0.7	2.3	3.0	2.4	65.8	68.2
1951.....	3.3	76.1	79.4	0.7	2.3	3.0	4.0	78.4	82.4

TABLE 40. New Investment in Durable Physical Assets and Repair and Maintenance, and Gross Revenues, Selected Utilities, <sup>1</sup> Canada, 1926-1951

(Millions of Dollars)

Year	New Investment	Repair and Maintenance	New Investment, Repair and Maintenance	Gross Revenues
1926.....	161.0	189.8	350.8	684.7
1927.....	190.9	201.7	392.6	713.5
1928.....	223.5	221.9	445.4	793.4
1929.....	319.2	218.8	538.0	780.5
1930.....	272.3	187.3	459.6	704.3
1931.....	207.9	157.0	364.9	596.7
1932.....	86.7	124.2	210.9	518.8
1933.....	47.4	116.9	164.3	433.3
1934.....	54.7	128.2	182.9	522.7
1935.....	63.5	130.5	194.0	534.7
1936.....	76.6	144.9	221.5	571.9
1937.....	122.3	145.1	267.4	604.9
1938.....	113.2	148.7	261.9	588.3
1939.....	102.0	153.3	255.3	629.4
1940.....	110.0	151.1	261.1	714.6
1941.....	135.3	176.5	311.8	859.1
1942.....	154.3	186.9	341.2	1,023.6
1943.....	108.4	213.4	321.8	1,158.1
1944.....	113.5	255.2	368.7	1,197.6
1945.....	109.5	275.7	385.2	1,188.9
1946.....	179.3	287.6	466.9	1,152.8
1947.....	306.8	308.1	614.9	1,245.3
1948.....	487.2	366.5	853.7	1,373.1
1949.....	588.8	393.0	981.8	1,436.7
1950.....	602.2	403.2	1,005.4	1,546.7
1951.....	752.0	428.8	1,180.8	—

1. Includes central electric stations, steam and electric railways, telegraphs and telephones.

2. Not available.

**TABLE 41. New Investment in Durable Physical Assets and Repair and Maintenance, All Privately and Publicly Owned Public Utilities, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	109.7	64.3	174.0	89.8	112.1	201.9	199.5	176.4	375.9
1927	118.3	85.5	203.8	98.0	119.0	217.0	216.3	204.5	420.8
1928	161.5	84.3	245.8	109.9	127.5	237.4	271.4	211.8	483.2
1929	205.5	138.6	344.1	107.2	124.8	232.0	312.7	263.4	576.1
1930	182.7	112.1	294.8	92.5	108.3	200.8	275.2	220.4	495.6
1931	144.5	76.7	221.2	79.9	89.1	169.0	224.4	165.8	390.2
1932	61.7	33.5	95.2	63.5	71.6	135.1	125.2	105.1	230.3
1933	30.5	24.0	54.5	58.8	67.5	126.3	89.3	91.5	180.8
1934	35.2	27.5	62.7	63.8	75.1	138.7	98.8	102.6	201.4
1935	39.7	33.6	73.3	65.8	76.2	142.0	105.5	109.8	215.3
1936	47.6	45.8	93.4	71.5	86.1	157.6	119.1	131.9	251.0
1937	56.2	84.6	140.8	71.9	97.5	169.4	128.1	182.1	310.2
1938	54.5	80.4	134.9	69.2	95.4	164.6	123.7	175.8	299.5
1939	54.7	65.6	120.3	72.1	98.9	171.0	126.8	164.5	291.3
1940	60.0	70.5	130.5	79.3	94.0	173.3	139.3	164.5	303.8
1941	83.3	75.5	158.8	93.2	111.5	204.7	176.5	187.0	363.5
1942	104.7	97.3	202.0	94.1	128.0	222.1	198.8	225.3	424.1
1943	107.6	187.5	295.1	110.5	143.8	254.3	218.1	331.3	549.4
1944	51.2	257.0	308.2	137.6	179.0	316.6	188.8	436.0	624.8
1945	73.3	120.1	193.4	148.5	174.9	323.4	221.8	295.0	516.8
1946	132.9	118.2	251.1	154.1	185.5	339.6	287.6	303.7	590.7
1947	173.5	236.1	409.6	162.4	210.9	373.3	335.9	447.0	782.9
1948	281.4	284.2	565.6	188.3	250.1	438.4	469.7	534.3	1,004.0
1949	376.5	302.4	678.9	200.9	264.0	464.9	577.4	566.4	1,143.8
1950	446.5	297.2	743.7	207.1	266.5	473.6	653.6	563.7	1,217.3
1951	488.5	403.8	892.3	215.2	283.8	499.0	703.7	687.6	1,391.3

1. Includes Newfoundland.

**TABLE 42. New Investment in Durable Physical Assets and Repair and Maintenance, All Privately Owned Public Utilities, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	62.7	51.9	114.6	42.7	62.8	105.5	105.4	114.7	220.1
1927	64.4	53.9	118.3	46.6	69.0	115.6	111.0	122.9	233.9
1928	86.7	60.4	147.1	53.0	74.0	127.0	139.7	134.4	274.1
1929	102.0	94.0	196.0	50.7	69.8	120.5	152.7	163.8	316.5
1930	94.0	76.7	170.7	42.0	58.4	100.4	136.0	135.1	271.1
1931	79.9	48.2	128.1	34.8	44.2	79.0	114.7	92.4	207.1
1932	36.7	26.7	63.4	29.6	37.3	66.9	66.3	64.0	130.3
1933	17.1	17.2	34.3	26.2	35.9	62.1	43.3	53.1	96.4
1934	20.7	23.2	43.9	28.3	41.6	69.9	49.0	64.8	113.8
1935	17.7	24.9	42.6	29.6	44.5	74.1	47.3	69.4	116.7
1936	21.0	27.6	48.6	30.9	47.3	78.2	51.9	74.9	126.8
1937	25.7	49.9	75.6	32.5	52.6	85.1	58.2	102.5	160.7
1938	23.2	49.0	72.2	30.9	51.9	82.8	54.1	100.3	155.0
1939	24.8	42.0	66.8	31.0	54.6	85.6	55.8	96.6	152.4
1940	30.8	35.4	66.2	35.2	53.8	89.0	66.0	89.2	155.2
1941	47.2	51.5	98.7	42.1	66.3	108.4	89.3	117.8	207.1
1942	51.3	53.6	104.9	48.3	77.1	125.4	99.6	130.7	230.3
1943	28.6	39.7	68.3	58.3	87.9	146.2	86.9	127.6	214.5
1944	18.6	45.1	63.7	73.2	111.0	184.2	91.8	156.1	247.9
1945	33.4	42.3	75.7	83.3	101.5	184.8	116.7	143.8	260.5
1946	70.0	88.2	158.2	79.1	112.4	191.5	149.1	200.6	349.7
1947	83.3	154.6	237.9	83.4	125.6	209.0	166.7	280.2	446.9
1948	127.7	188.8	316.5	94.5	145.9	240.4	222.2	314.7	536.9
1949	147.0	182.3	329.3	100.1	159.1	259.2	247.1	341.4	588.5
1950	216.2	191.3	407.5	108.2	162.3	270.5	324.4	353.6	678.0
1951	211.3	238.4	449.7	113.2	173.7	286.9	324.5	412.1	736.6

**TABLE 43. New Investment in Durable Physical Assets and Repair and Maintenance, All Publicly Owned Public Utilities, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	47.0	12.4	59.4	47.1	49.3	96.4	94.1	61.7	155.8
1927	53.9	31.6	85.5	51.4	50.0	101.4	105.3	81.6	186.9
1928	74.8	23.9	98.7	56.9	53.5	110.4	131.7	77.4	209.1
1929	103.5	44.6	148.1	56.5	55.0	111.5	160.0	99.6	259.6
1930	88.7	35.4	124.1	50.5	49.9	100.4	139.2	85.3	224.5
1931	64.6	28.5	93.1	45.1	44.9	90.0	109.7	73.4	183.1
1932	25.0	6.8	31.8	33.9	34.3	68.2	58.9	41.1	100.0
1933	13.4	6.8	20.2	32.6	31.6	64.2	46.0	38.4	84.4
1934	14.5	4.3	18.8	35.3	33.5	68.8	49.8	37.8	87.6
1935	22.0	8.7	30.7	36.2	31.7	67.9	58.2	40.4	98.6
1936	26.6	18.2	44.8	40.6	38.8	79.4	67.2	57.0	124.2
1937	30.5	34.7	65.2	39.4	44.9	84.3	69.9	79.6	149.5
1938	31.3	31.4	62.7	38.3	43.5	81.8	69.6	74.9	144.5
1939	29.9	23.6	53.5	41.1	44.3	85.4	71.0	67.9	138.9
1940	29.2	35.1	64.3	44.1	40.2	84.3	73.3	75.3	148.6
1941	36.1	24.0	60.1	51.1	45.2	96.3	87.2	69.2	156.4
1942	53.4	43.7	97.1	45.8	50.9	96.7	99.2	94.6	193.8
1943	79.0	147.8	226.8	52.2	55.9	108.1	131.2	203.7	334.9
1944	244.6	211.9	456.5	64.4	68.0	132.4	97.0	279.9	376.9
1945	39.9	77.8	117.7	65.2	73.4	138.6	105.1	151.2	256.3
1946	62.9	30.0	92.9	75.0	73.1	148.1	137.9	103.1	241.0
1947	90.2	81.5	171.7	79.0	85.3	164.3	169.2	166.8	336.0
1948	153.7	115.4	269.1	93.8	104.2	198.0	247.5	219.6	467.1
1949	229.5	120.1	349.6	100.8	104.9	205.7	330.3	225.0	555.3
1950	230.3	105.9	336.2	98.9	104.2	203.1	329.2	210.1	539.3
1951	277.2	165.4	442.6	102.0	110.1	212.1	379.2	275.5	654.7

1. Includes capital expenditures made on Canol project by the United States Government. These expenditures are not included in Tables 44 to 46.

**TABLE 44. New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government-Operated Public Utilities, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	32.2	4.5	36.7	39.8	43.2	83.0	72.0	47.7	119.7
1927	35.3	20.8	56.1	43.2	43.3	86.5	78.5	64.1	142.6
1928	55.1	11.1	66.2	48.3	46.9	95.2	103.4	58.0	161.4
1929	75.0	27.6	102.6	47.2	47.9	95.1	122.2	75.5	197.7
1930	52.0	20.0	72.0	41.1	42.5	83.6	93.1	62.5	155.6
1931	27.2	17.2	44.4	36.0	37.7	73.7	63.2	54.9	118.1
1932	7.7	0.5	8.2	25.5	27.9	53.4	33.2	28.4	61.6
1933	5.8	2.4	8.2	25.3	26.0	51.3	31.1	28.4	59.5
1934	8.3	0.8	9.1	28.0	27.8	55.8	36.3	28.6	64.9
1935	9.9	1.3	11.2	29.2	26.1	55.3	39.1	27.4	66.5
1936	16.1	10.3	26.4	33.1	32.9	66.0	49.2	43.2	92.4
1937	17.2	22.5	39.7	31.4	38.6	70.0	48.6	61.1	109.7
1938	13.6	16.2	29.8	30.1	36.9	67.0	43.7	53.1	96.8
1939	14.5	12.7	27.2	32.4	37.5	69.9	46.9	50.2	97.1
1940	13.9	21.1	35.0	35.3	33.3	68.6	49.2	54.4	103.6
1941	19.5	9.6	29.1	41.4	37.0	78.4	60.9	46.6	107.5
1942	17.4	29.4	46.8	36.5	42.4	78.9	53.9	71.8	125.7
1943	15.7	107.1	122.8	42.0	88.3	130.3	57.7	153.4	211.1
1944	16.7	185.3	202.0	52.3	56.7	109.0	69.0	242.0	311.0
1945	14.5	71.2	85.7	50.6	60.4	111.0	65.1	131.6	196.7
1946	20.8	17.2	38.0	58.3	58.5	116.8	79.1	75.7	154.8
1947	23.6	36.6	60.2	60.1	68.6	128.7	83.7	105.2	188.9
1948	30.5	55.2	85.7	70.8	85.2	156.0	101.3	140.4	241.7
1949	36.2	40.3	76.5	73.5	86.0	159.5	109.7	126.3	236.0
1950	36.5	40.8	77.3	78.5	92.1	170.6	115.0	132.9	247.9
1951	50.8	80.6	131.4	80.2	96.7	176.9	131.0	177.3	308.3



**TABLE 45. New Investment in Durable Physical Assets and Repair and Maintenance,  
Provincial Government-Operated Public Utilities, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	7.2	3.4	10.6	2.7	2.1	4.8	9.9	5.5	15.4
1927	9.1	4.1	13.2	3.0	2.4	5.4	12.1	6.5	18.6
1928	8.4	6.0	14.4	3.1	2.3	5.4	11.5	8.3	19.8
1929	14.8	9.2	24.0	3.4	2.5	5.9	18.2	11.7	29.9
1930	21.8	8.5	30.3	3.4	2.6	6.0	25.2	11.1	36.3
1931	21.5	6.0	27.5	3.4	2.6	6.0	24.9	8.6	33.5
1932	9.0	2.6	11.6	3.3	2.4	5.7	12.3	5.0	17.3
1933	2.7	1.7	4.4	3.0	2.2	5.2	5.7	3.9	9.6
1934	2.6	1.5	4.1	3.2	2.3	5.5	5.8	3.8	9.6
1935	7.0	4.5	11.5	2.8	2.1	4.9	9.8	6.6	16.4
1936	4.8	4.1	8.9	3.0	2.2	5.2	7.8	6.3	14.1
1937	6.6	6.9	13.5	3.2	2.4	5.6	9.8	9.3	19.1
1938	9.4	6.8	16.2	3.2	2.5	5.7	12.6	9.3	21.9
1939	8.4	6.1	14.5	3.4	2.7	6.1	11.8	8.8	20.6
1940	9.7	6.4	16.1	3.5	2.7	6.2	13.2	9.1	22.3
1941	12.9	8.2	21.1	3.7	2.9	6.6	16.6	11.1	27.7
1942	10.7	6.6	17.3	3.8	3.1	6.9	14.5	9.7	24.2
1943	7.0	3.5	10.5	3.9	3.2	7.1	10.9	6.7	17.6
1944	7.7	2.2	9.9	5.3	4.1	9.4	13.0	6.3	19.3
1945	18.3	1.8	20.1	5.7	4.2	9.9	24.0	6.0	30.0
1946	28.9	5.3	34.2	7.0	5.0	12.0	35.9	10.3	46.2
1947	49.5	26.1	75.6	8.0	6.5	14.5	57.5	32.6	90.1
1948	92.8	33.8	126.6	9.7	6.8	16.5	102.5	40.6	143.1
1949	155.7	52.3	208.0	12.1	7.3	19.4	167.8	59.6	227.4
1950	154.0	50.4	204.4	10.7	7.1	17.8	164.7	57.5	222.2
1951	144.3	63.6	207.9	11.5	7.9	19.4	155.8	71.5	227.3

**TABLE 46. New Investment in Durable Physical Assets and Repair and Maintenance,  
Municipal Government-Operated Public Utilities, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	7.6	4.5	12.1	4.6	4.0	8.6	12.2	8.5	20.7
1927	9.5	6.7	16.2	5.2	4.3	9.5	14.7	11.0	25.7
1928	11.3	6.8	18.1	5.5	4.3	9.8	16.8	11.1	27.9
1929	13.7	7.8	21.5	5.9	4.6	10.5	19.6	12.4	32.0
1930	14.9	6.9	21.8	6.0	4.8	10.8	20.9	11.7	32.6
1931	15.9	5.3	21.2	5.7	4.6	10.3	21.6	9.9	31.5
1932	8.3	3.7	12.0	5.1	4.0	9.1	13.4	7.7	21.1
1933	4.9	2.7	7.6	4.3	3.4	7.7	9.2	6.1	15.3
1934	3.6	2.0	5.6	4.1	3.4	7.5	7.7	5.4	13.1
1935	5.1	2.9	8.0	4.2	3.5	7.7	9.3	6.4	15.7
1936	5.7	3.8	9.5	4.5	3.7	8.2	10.2	7.5	17.7
1937	6.7	5.3	12.0	4.8	3.9	8.7	11.5	9.2	20.7
1938	8.3	8.4	16.7	5.0	4.1	9.1	13.3	12.5	25.8
1939	7.0	4.8	11.8	5.3	4.1	9.4	12.3	8.9	21.2
1940	5.6	7.6	13.2	5.3	4.2	9.5	10.9	11.8	22.7
1941	3.7	6.2	9.9	6.0	5.3	11.3	9.7	11.5	21.2
1942	3.1	7.7	10.8	5.5	5.4	10.9	8.6	9.6	19.2
1943	3.3	3.2	6.5	6.3	6.4	12.7	9.6	11.6	21.6
1944	3.2	4.4	7.6	6.8	7.2	14.0	10.0	13.6	23.6
1945	7.1	4.8	11.9	8.9	8.8	17.7	16.0	13.6	29.6
1946	13.2	7.5	20.7	9.7	9.6	19.3	22.9	17.1	40.0
1947	17.1	18.3	35.9	10.9	10.2	21.1	28.0	29.0	57.0
1948	30.4	26.4	56.8	13.3	12.2	25.5	43.7	38.6	82.3
1949	37.6	27.5	65.1	15.2	11.6	26.8	52.8	39.1	91.9
1950	39.8	14.7	54.5	9.7	5.0	14.7	49.5	19.7	69.2
1951	82.1	21.2	103.3	10.3	5.5	15.8	92.4	26.7	119.1

TABLE 47. New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public<sup>1</sup> Central Electric Stations and Gas-Works, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	25.9	17.2	43.1	4.4	2.8	7.2	30.3	20.0	50.3
1927.....	24.8	21.2	46.0	5.1	3.4	8.5	29.9	24.6	54.5
1928.....	36.5	25.8	62.3	5.3	3.5	8.8	41.8	29.3	71.1
1929.....	48.4	27.1	75.5	6.2	4.1	10.3	54.6	31.2	85.8
1930.....	64.3	26.7	91.0	6.5	4.3	10.8	70.8	31.0	101.8
1931.....	59.7	17.7	77.4	6.3	4.1	10.4	66.0	21.8	87.8
1932.....	30.2	12.2	42.4	6.4	4.3	10.7	36.6	16.5	53.1
1933.....	11.1	5.6	16.7	6.2	4.3	10.5	17.3	9.9	27.2
1934.....	12.8	6.1	18.9	6.4	4.4	10.8	19.2	10.5	29.7
1935.....	14.9	8.1	23.0	6.0	4.1	10.1	20.9	12.2	33.1
1936.....	10.7	8.8	19.5	6.0	4.0	10.0	16.7	12.8	29.5
1937.....	16.2	15.4	31.6	6.4	4.3	10.7	22.6	19.7	42.3
1938.....	20.7	14.8	35.5	6.5	4.4	10.9	27.2	19.2	46.4
1939.....	19.1	12.2	31.3	6.8	4.6	11.4	25.9	16.8	42.7
1940.....	20.8	13.0	33.8	7.0	4.8	11.8	27.8	17.8	45.6
1941.....	40.1	21.6	61.7	8.0	5.2	13.2	48.1	26.8	74.9
1942.....	50.3	27.0	77.3	8.6	5.3	13.9	58.9	32.3	91.2
1943.....	23.8	12.9	36.7	9.9	6.2	16.1	33.7	19.1	52.8
1944.....	11.5	8.3	19.8	12.8	7.9	20.7	24.3	16.2	40.5
1945.....	26.4	5.0	31.4	14.4	9.0	23.4	40.8	14.0	54.8
1946.....	57.0	11.4	68.4	15.1	10.6	25.7	72.1	22.0	94.1
1947.....	32.0	40.5	72.5	15.8	7.6	23.4	47.8	48.1	95.9
1948.....	164.9	69.1	234.0	16.5	12.1	28.6	181.4	81.2	262.6
1949.....	228.1	91.8	319.9	20.1	12.6	32.7	248.2	104.4	352.6
1950.....	252.0	92.5	344.5	22.3	11.4	33.7	274.3	103.9	378.2
1951.....	266.5	121.9	388.4	23.5	12.5	36.0	290.0	134.4	424.4

1. Includes central electric stations operated by the Federal Government as well as those operated by provincial and municipal governments.

TABLE 48. New Investment in Durable Physical Assets and Repair and Maintenance, Private Central Electric Stations and Gas-Works, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	19.3	12.9	32.2	1.5	1.3	2.8	20.8	14.2	35.0
1927.....	17.2	15.0	32.2	1.8	1.7	3.5	19.0	16.7	35.7
1928.....	25.2	18.0	43.2	1.9	1.7	3.6	27.1	19.7	46.8
1929.....	27.4	15.6	43.0	2.3	2.0	4.3	29.7	17.6	47.3
1930.....	39.8	16.6	56.4	2.4	2.2	4.6	42.2	18.8	61.0
1931.....	35.7	10.6	46.3	2.4	2.1	4.5	38.1	12.7	50.8
1932.....	21.3	8.6	29.9	2.5	2.2	4.7	23.8	10.8	34.6
1933.....	6.5	3.3	9.8	2.6	2.3	4.9	9.1	5.6	14.7
1934.....	9.1	4.4	13.5	2.6	2.4	5.0	11.7	6.8	18.5
1935.....	5.6	3.1	8.7	2.5	2.3	4.8	8.1	5.4	13.5
1936.....	4.1	3.5	7.6	2.2	2.0	4.2	6.3	5.5	11.8
1937.....	6.8	6.7	13.5	2.5	2.2	4.7	9.3	8.9	18.2
1938.....	8.1	5.9	14.0	2.6	2.3	4.9	10.7	8.2	18.9
1939.....	7.9	5.1	13.0	2.7	2.4	5.1	10.6	7.5	18.1
1940.....	9.2	3.9	13.1	2.7	2.5	5.2	11.9	6.4	18.3
1941.....	26.6	10.9	37.5	3.2	2.6	5.8	29.8	13.5	43.3
1942.....	39.9	18.8	58.7	4.1	2.8	6.9	44.0	21.6	65.6
1943.....	17.3	8.8	26.1	5.0	3.6	8.6	22.3	12.4	34.7
1944.....	4.5	5.2	9.7	6.6	4.5	11.1	11.1	9.7	20.8
1945.....	6.4	2.3	8.7	6.3	4.6	10.9	12.7	6.9	19.6
1946.....	23.6	5.7	29.3	6.5	5.9	12.4	30.1	11.6	41.7
1947.....	26.0	12.5	38.5	5.5	1.1	6.6	31.5	13.6	45.1
1948.....	58.4	30.2	88.6	3.8	5.2	9.0	62.2	35.4	97.6
1949.....	60.1	30.9	91.0	3.2	3.3	6.5	63.3	34.2	97.5
1950.....	96.7	41.2	137.9	11.0	5.7	16.7	107.7	46.9	154.6
1951.....	117.9	57.6	175.5	11.7	6.3	18.0	129.6	63.9	193.5

**TABLE 49. New Investment in Durable Physical Assets and Repair and Maintenance, Public Central Electric Stations<sup>1</sup> and Gas-Works, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	6.6	4.3	10.9	2.9	1.5	4.4	9.5	5.8	15.3
1927	7.6	6.2	13.8	3.3	1.7	5.0	10.9	7.9	18.8
1928	11.3	7.8	19.1	3.4	1.8	5.2	14.7	9.6	24.3
1929	21.0	11.5	32.5	3.9	2.1	6.0	24.9	13.6	38.5
1930	24.5	10.1	34.6	4.1	2.1	6.2	28.6	12.2	40.8
1931	24.0	7.1	31.1	3.9	2.0	5.9	27.9	9.1	37.0
1932	8.9	3.6	12.5	3.9	2.1	6.0	12.8	5.7	18.5
1933	4.6	2.3	6.9	3.6	2.0	5.6	8.2	4.3	12.5
1934	3.7	1.7	5.4	3.8	2.0	5.8	7.5	3.7	11.2
1935	9.3	5.0	14.3	3.5	1.8	5.3	12.8	6.8	19.6
1936	6.6	5.3	11.9	3.8	2.0	5.8	10.4	7.3	17.7
1937	9.4	8.7	18.1	3.9	2.1	6.0	13.3	10.8	24.1
1938	12.6	8.9	21.5	3.9	2.1	6.0	16.5	11.0	27.5
1939	11.2	7.1	18.3	4.1	2.2	6.3	15.3	9.3	24.6
1940	11.6	9.1	20.7	4.3	2.3	6.6	15.9	11.4	27.3
1941	13.5	10.7	24.2	4.8	2.6	7.4	18.3	13.3	31.6
1942	10.4	8.2	18.6	4.5	2.5	7.0	14.9	10.7	25.6
1943	6.5	4.1	10.6	4.9	2.6	7.5	11.4	6.7	18.1
1944	7.0	3.1	10.1	6.2	3.4	9.6	13.2	6.5	19.7
1945	20.0	2.7	22.7	8.1	4.4	12.5	28.1	7.1	35.2
1946	33.4	5.7	39.1	8.6	4.7	13.3	42.0	10.4	52.4
1947	56.0	28.0	84.0	10.3	6.5	16.8	66.3	34.5	100.8
1948	106.5	38.9	145.4	12.7	6.9	19.6	119.2	45.8	165.0
1949	168.0	60.9	228.9	16.9	9.3	26.2	184.8	70.2	255.0
1950	155.3	51.3	206.6	11.3	5.7	17.0	166.6	57.0	223.6
1951	148.6	64.3	212.9	11.8	6.2	18.0	160.4	70.5	230.9

1. Includes central electric stations operated by the Federal Government as well as those operated by provincial and municipal governments.

**TABLE 50. New Investment in Durable Physical Assets and Repair and Maintenance, Provincial Government-Operated Central Electric Stations and Gas-Works, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	2.4	1.6	4.0	1.0	0.6	1.6	3.4	2.2	5.6
1927	2.8	2.3	5.1	1.2	0.7	1.9	4.0	3.0	7.0
1928	5.5	3.8	9.3	1.2	0.7	1.9	6.7	4.5	11.2
1929	12.0	6.6	18.6	1.5	0.9	2.4	13.5	7.5	21.0
1930	14.1	5.8	19.9	1.5	0.9	2.4	15.6	6.7	22.3
1931	12.9	3.8	16.7	1.6	0.9	2.5	14.5	4.7	19.2
1932	4.0	1.6	5.6	1.7	1.0	2.7	5.7	2.6	8.3
1933	2.2	1.1	3.3	1.6	1.0	2.6	3.8	2.1	5.9
1934	2.2	1.0	3.2	1.7	1.0	2.7	3.9	2.0	5.9
1935	6.7	3.6	10.3	1.4	0.8	2.2	8.1	4.4	12.5
1936	4.0	3.2	7.2	1.5	0.9	2.4	5.5	4.1	9.6
1937	5.8	5.4	11.2	1.5	0.9	2.4	7.3	6.3	13.6
1938	8.1	5.7	13.8	1.5	0.9	2.4	9.6	6.6	16.2
1939	7.4	4.7	12.1	1.7	1.0	2.7	9.1	5.7	14.8
1940	8.5	5.1	13.6	1.7	1.0	2.7	10.2	6.1	16.3
1941	12.1	6.9	19.0	1.8	1.1	2.9	13.9	8.0	21.9
1942	9.6	5.2	14.8	2.1	1.3	3.4	11.7	6.5	18.2
1943	5.9	2.6	8.5	2.2	1.3	3.5	8.1	3.9	12.0
1944	6.0	1.4	7.4	3.3	2.0	5.3	9.3	3.4	12.7
1945	16.7	1.2	17.9	3.5	2.1	5.6	20.2	3.3	23.5
1946	26.7	3.2	29.9	4.1	2.5	6.6	30.8	5.7	36.5
1947	46.3	19.0	65.3	4.6	3.6	8.2	50.9	22.6	73.5
1948	86.7	24.2	110.9	4.8	2.9	7.7	91.5	27.1	118.6
1949	148.3	44.2	192.5	7.9	3.9	11.8	156.2	48.1	204.3
1950	145.5	42.7	188.2	6.8	3.7	10.5	152.3	46.4	198.7
1951	135.8	51.5	187.3	6.9	3.9	10.8	142.7	55.4	198.1



TABLE 51. New Investment in Durable Physical Assets and Repair and Maintenance, Municipal Government-Operated Central Electric Stations and Gas-Works, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	4.2	2.7	6.9	1.9	0.9	2.8	6.1	3.6	9.7
1927	4.8	3.9	8.7	2.1	1.0	3.1	6.9	4.9	11.8
1928	5.8	4.0	9.8	2.2	1.1	3.3	8.0	5.1	13.1
1929	9.0	4.9	13.9	2.4	1.2	3.6	11.4	6.1	17.5
1930	10.4	4.3	14.7	2.6	1.2	3.8	13.0	5.5	18.5
1931	11.1	3.3	14.4	2.3	1.1	3.4	13.4	4.4	17.8
1932	4.9	2.0	6.9	2.2	1.1	3.3	7.1	3.1	10.2
1933	2.4	1.2	3.6	2.0	1.0	3.0	4.4	2.2	6.6
1934	1.5	0.7	2.2	2.1	1.0	3.1	3.6	1.7	5.3
1935	2.6	1.4	4.0	2.1	1.0	3.1	4.7	2.4	7.1
1936	2.6	2.1	4.7	2.3	1.1	3.4	4.9	3.2	8.1
1937	3.6	3.3	6.9	2.4	1.2	3.6	6.0	4.5	10.5
1938	4.5	3.2	7.7	2.4	1.2	3.6	6.9	4.4	11.3
1939	3.8	2.4	6.2	2.4	1.2	3.6	6.2	3.6	9.8
1940	3.1	4.0	7.1	2.6	1.3	3.9	5.7	5.3	11.0
1941	1.4	3.8	5.2	3.0	1.5	4.5	4.4	5.3	9.7
1942	0.8	3.0	3.8	2.4	1.2	3.6	3.2	4.2	7.4
1943	0.6	1.5	2.1	2.7	1.3	4.0	3.3	2.8	6.1
1944	1.0	1.7	2.7	2.9	1.4	4.3	3.9	3.1	7.0
1945	3.3	1.5	4.8	4.6	2.3	6.9	7.9	3.8	11.7
1946	5.9	2.4	8.3	4.5	2.2	6.7	10.4	4.6	15.0
1947	8.6	8.6	17.2	5.7	2.9	8.6	14.3	11.5	25.8
1948	17.8	14.6	32.4	7.9	4.0	11.9	25.7	18.6	44.3
1949	19.7	16.7	36.4	9.0	5.4	14.4	28.7	22.1	50.8
1950	9.8	8.6	18.4	4.5	2.0	6.5	14.3	10.6	24.9
1951	12.8	12.8	25.6	4.9	2.3	7.2	17.7	15.1	32.8

TABLE 52. New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public Steam Railways and Telegraphs, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	61.7	21.9	83.6	76.2	90.6	166.8	137.9	112.5	250.4
1927	72.9	35.9	108.8	82.2	92.7	174.9	155.1	128.6	283.7
1928	97.8	20.3	118.1	93.4	100.8	194.2	191.2	121.1	312.3
1929	122.7	65.2	187.9	89.4	98.9	188.3	212.1	164.1	376.2
1930	92.2	40.3	132.5	74.3	81.3	155.6	166.5	121.6	288.1
1931	66.9	27.4	94.3	62.7	64.5	127.2	129.6	91.9	221.5
1932	21.6	2.4	24.0	47.5	48.9	96.4	69.1	51.3	120.4
1933	12.4	2.9	15.3	44.7	47.4	92.1	57.1	50.3	107.4
1934	15.9	3.3	19.2	49.3	53.4	102.7	65.2	56.7	121.9
1935	19.2	4.6	23.8	51.6	53.8	105.4	70.8	58.4	129.2
1936	22.3	15.9	38.2	55.9	63.1	119.0	78.2	79.0	157.2
1937	23.6	42.4	66.0	55.0	62.5	117.5	78.6	104.9	183.5
1938	19.5	30.9	50.4	51.8	68.6	120.4	71.3	99.5	170.8
1939	21.0	23.6	44.6	53.9	70.4	124.3	74.9	94.0	168.9
1940	22.8	27.9	50.7	59.8	60.7	120.5	82.6	88.6	171.2
1941	29.2	17.4	46.6	71.0	70.3	141.3	100.2	87.7	187.9
1942	24.8	25.8	50.6	69.9	79.0	148.9	94.7	104.8	199.5
1943	22.3	35.7	58.0	84.0	86.8	170.8	106.3	122.5	228.8
1944	25.0	50.1	75.1	104.0	101.0	205.0	129.0	151.1	280.1
1945	23.6	26.7	50.3	112.3	108.0	220.3	135.9	134.7	270.6
1946	34.0	23.4	57.4	114.7	105.9	220.6	148.7	129.3	278.0
1947	27.3	54.0	81.3	116.8	120.7	237.5	144.1	174.7	318.8
1948	38.4	92.2	130.6	143.9	141.8	285.7	182.3	234.0	416.3
1949	53.9	81.3	135.2	153.8	147.5	301.3	207.7	228.8	436.5
1950	43.6	77.8	121.4	156.7	149.6	306.3	200.3	227.4	427.7
1951	61.0	144.1	205.1	162.0	162.1	324.1	223.0	306.2	529.2

TABLE 53. New Investment in Durable Physical Assets and Repair and Maintenance, Private Steam Railways and Telegraphs, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926 .....	27.9	17.2	45.1	35.6	47.0	82.6	63.5	64.2	127.7
1927 .....	33.2	15.3	48.5	38.3	49.1	87.4	71.5	64.4	135.9
1928 .....	42.2	14.2	56.4	44.4	53.6	98.0	86.6	67.8	154.4
1929 .....	47.3	40.8	88.1	41.4	50.6	92.0	88.7	91.4	180.1
1930 .....	36.8	20.3	57.1	32.5	38.3	70.8	69.3	58.6	127.9
1931 .....	33.6	9.3	42.9	25.8	26.2	52.0	59.4	35.5	94.9
1932 .....	9.8	1.8	11.6	21.2	20.6	41.8	31.0	22.4	53.4
1933 .....	6.5	0.4	6.9	18.7	21.0	39.7	25.2	21.4	46.6
1934 .....	7.4	2.4	9.8	20.5	25.2	45.7	27.9	27.6	55.5
1935 .....	9.2	3.1	12.3	21.7	27.3	49.0	30.9	30.4	61.3
1936 .....	10.4	6.1	16.5	23.2	29.9	53.1	33.6	36.0	69.6
1937 .....	10.1	20.6	30.7	23.8	33.5	57.3	33.9	54.1	88.0
1938 .....	7.7	17.3	25.0	21.8	31.4	53.2	29.5	48.7	78.2
1939 .....	8.8	12.0	20.8	21.7	32.7	54.4	30.5	44.7	75.2
1940 .....	9.1	8.4	17.5	24.7	27.7	52.4	33.8	36.1	69.9
1941 .....	10.8	9.1	19.9	29.9	33.9	63.8	40.7	43.0	83.7
1942 .....	7.9	9.7	17.6	34.1	37.5	71.6	42.0	47.2	89.2
1943 .....	7.9	13.7	21.6	42.5	42.3	84.8	50.4	56.0	106.4
1944 .....	8.6	18.5	27.1	52.1	49.5	101.6	60.7	68.0	128.7
1945 .....	9.2	14.7	23.9	62.3	56.6	118.9	71.5	71.3	142.8
1946 .....	14.5	15.3	29.8	56.8	54.8	111.6	71.3	70.1	141.4
1947 .....	9.2	32.1	41.3	57.1	57.4	114.5	66.3	89.5	155.8
1948 .....	15.1	41.9	57.0	72.7	66.1	138.8	87.8	108.0	195.8
1949 .....	23.0	41.3	64.3	79.1	68.1	147.2	102.1	109.4	211.5
1950 .....	12.7	38.3	51.0	78.0	64.8	142.8	90.7	103.1	193.8
1951 .....	18.0	64.2	82.2	81.4	72.6	154.0	99.4	136.8	236.2

TABLE 54. New Investment in Durable Physical Assets and Repair and Maintenance, Public Steam Railways and Telegraphs, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926 .....	33.8	4.7	38.5	40.6	43.6	84.2	74.4	48.3	122.7
1927 .....	39.7	20.6	60.3	43.9	43.6	87.5	83.6	64.2	147.8
1928 .....	55.6	6.1	61.7	49.0	47.2	96.2	104.6	53.3	157.9
1929 .....	75.4	24.4	99.8	48.0	48.3	96.3	123.4	72.7	196.1
1930 .....	55.4	20.0	75.4	41.8	43.0	84.8	97.2	63.0	160.2
1931 .....	33.3	18.1	51.4	36.9	38.3	75.2	70.2	56.4	126.6
1932 .....	11.8	0.6	12.4	26.3	28.3	54.6	38.1	28.9	67.0
1933 .....	5.9	2.5	8.4	26.0	26.4	52.4	31.9	28.9	60.8
1934 .....	8.5	0.9	9.4	28.8	28.2	57.0	37.3	29.1	66.4
1935 .....	10.0	1.5	11.5	29.9	26.5	56.4	39.9	28.0	67.9
1936 .....	11.9	9.8	21.7	32.7	33.2	65.9	44.6	43.0	87.6
1937 .....	13.5	21.8	35.3	31.2	29.0	60.2	44.7	50.8	95.5
1938 .....	11.8	13.6	25.4	30.0	37.2	67.2	41.8	50.8	92.6
1939 .....	12.2	11.6	23.8	32.2	37.7	69.9	44.4	49.3	93.7
1940 .....	13.7	19.5	33.2	35.1	33.0	68.1	48.8	52.5	101.3
1941 .....	18.4	8.3	26.7	41.1	36.4	77.5	59.5	44.7	104.2
1942 .....	16.9	16.1	33.0	35.8	41.5	77.3	52.7	57.6	110.3
1943 .....	14.4	22.0	36.4	41.5	44.5	86.0	55.9	66.5	122.4
1944 .....	16.4	31.6	48.0	51.9	51.5	103.4	68.3	83.1	151.4
1945 .....	14.4	12.0	26.4	50.0	51.4	101.4	64.4	63.4	127.8
1946 .....	19.5	8.1	27.6	57.9	51.1	109.0	77.4	59.2	136.6
1947 .....	18.1	21.9	40.0	59.7	63.3	123.0	77.8	85.2	163.0
1948 .....	23.3	50.3	73.6	71.2	75.7	146.9	94.5	126.0	220.5
1949 .....	30.9	40.0	70.9	74.7	79.4	154.1	105.6	119.4	225.0
1950 .....	30.9	39.5	70.4	78.7	84.8	163.5	109.6	124.3	233.9
1951 .....	43.0	79.9	122.9	80.6	89.5	170.1	123.6	169.4	293.0

**TABLE 55. New Investment in Durable Physical Assets and Repair and Maintenance,  
Private and Public Electric Railways, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	6.0	2.6	8.6	3.1	4.4	7.5	9.1	7.0	16.1
1927	5.1	3.5	8.6	3.1	4.7	7.8	8.2	8.2	16.4
1928	5.7	3.6	9.3	3.3	4.5	7.8	9.0	8.1	17.1
1929	5.6	5.6	11.2	3.3	4.6	7.9	8.9	10.2	19.1
1930	3.5	2.5	6.0	3.0	4.5	7.5	6.5	7.0	13.5
1931	3.9	1.4	5.3	2.4	3.9	6.3	6.3	5.3	11.6
1932	1.6	0.6	2.2	1.9	3.2	5.1	3.5	3.8	7.3
1933	1.1	0.7	1.8	1.6	2.8	4.4	2.7	3.5	6.2
1934	2.6	1.1	3.7	1.6	2.9	4.5	4.2	4.0	8.2
1935	1.3	0.8	2.1	1.7	3.0	4.7	3.0	3.8	6.8
1936	2.1	1.4	3.5	1.8	3.2	5.0	3.9	4.6	8.5
1937	2.3	1.6	3.9	1.8	3.3	5.1	4.1	4.9	9.0
1938	2.1	5.0	7.1	1.9	3.4	5.3	4.0	8.4	12.4
1939	1.0	1.8	2.8	1.9	3.3	5.2	2.9	5.1	8.0
1940	1.1	3.7	4.8	2.0	3.5	5.5	3.1	7.2	10.3
1941	0.8	3.8	4.6	2.5	5.1	7.6	3.3	8.9	12.2
1942	0.9	5.7	6.6	2.9	6.2	9.1	3.8	11.9	15.7
1943	1.3	2.0	3.3	3.6	8.0	11.6	4.9	10.0	14.9
1944	1.4	4.3	5.7	3.9	9.1	13.0	5.3	13.4	18.7
1945	1.4	3.4	4.8	4.6	10.4	15.0	6.0	13.8	19.8
1946	2.4	6.5	8.9	4.7	12.9	17.6	7.1	19.4	26.5
1947	5.9	15.8	21.7	6.3	11.9	18.2	12.2	27.7	39.9
1948	6.6	12.4	19.0	6.3	14.0	20.3	12.9	26.4	39.3
1949	5.7	13.3	19.0	4.9	15.2	20.1	10.6	28.5	39.1
1950	11.7	11.6	23.3	4.6	15.3	19.9	16.3	26.9	43.2
1951	24.0	11.6	35.6	4.6	15.6	20.2	28.6	27.2	55.8

**TABLE 56. New Investment in Durable Physical Assets and Repair and Maintenance,  
Private Electric Railways, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	4.7	2.0	6.7	1.6	2.4	4.0	6.3	4.4	10.7
1927	2.5	2.0	4.5	1.7	2.6	4.3	4.2	4.6	8.8
1928	2.5	2.3	4.8	1.7	2.6	4.3	4.2	4.9	9.1
1929	4.1	4.5	8.6	1.8	2.7	4.5	5.9	7.2	13.1
1930	2.4	1.9	4.3	1.6	2.6	4.2	4.0	4.5	8.5
1931	1.9	1.0	2.9	1.4	2.3	3.7	3.3	3.3	6.6
1932	0.8	0.3	1.1	1.1	1.9	3.0	1.9	2.2	4.1
1933	0.9	0.4	1.3	0.9	1.7	2.6	1.8	2.1	3.9
1934	2.4	0.9	3.3	0.9	1.7	2.6	3.3	2.6	5.9
1935	1.0	0.6	1.6	1.0	1.7	2.7	2.0	2.3	4.3
1936	1.4	1.0	2.4	1.0	1.9	2.9	2.4	2.9	5.3
1937	1.5	1.1	2.6	1.0	2.0	3.0	2.5	3.1	5.6
1938	0.9	1.1	2.0	1.1	2.1	3.2	2.0	3.2	5.2
1939	0.5	1.0	1.5	1.1	2.1	3.2	1.6	3.1	4.7
1940	0.4	1.0	1.4	1.2	2.2	3.4	1.6	3.2	4.8
1941	0.5	2.5	3.0	1.5	3.0	4.5	2.0	5.5	7.5
1942	0.2	2.0	2.2	1.7	3.6	5.3	1.9	5.6	7.5
1943	0.6	1.5	2.1	2.0	4.6	6.6	2.6	6.1	8.7
1944	1.0	2.4	3.4	2.3	5.2	7.5	3.3	7.6	10.9
1945	0.9	1.7	2.6	2.9	5.9	8.8	3.8	7.6	11.4
1946	1.1	3.6	4.7	2.2	7.8	10.0	3.3	11.4	14.7
1947	4.4	8.8	13.2	4.2	7.8	12.0	8.6	16.6	25.2
1948	4.0	6.9	10.9	3.7	8.7	12.4	7.7	15.6	23.3
1949	1.4	7.8	9.2	2.6	10.4	13.0	4.0	18.2	22.2
1950	2.2	10.3	12.5	4.0	13.9	17.9	6.2	24.2	30.4
1951	4.4	10.0	14.4	4.0	14.1	18.1	8.4	24.1	32.5



**TABLE 57. New Investment in Durable Physical Assets and Repair and Maintenance, Public Electric Railways, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	1.3	0.6	1.9	1.5	2.0	3.5	2.8	2.6	5.4
1927	2.6	1.5	4.1	1.4	2.1	3.5	4.0	3.6	7.6
1928	3.2	1.3	4.5	1.6	1.9	3.5	4.8	3.2	8.0
1929	1.5	1.1	2.6	1.5	1.9	3.4	3.0	3.0	6.0
1930	1.1	0.6	1.7	1.4	1.9	3.3	2.5	2.5	5.0
1931	2.0	0.4	2.4	1.0	1.6	2.6	3.0	2.0	5.0
1932	0.8	0.3	1.1	0.8	1.3	2.1	1.6	1.6	3.2
1933	0.2	0.3	0.5	0.7	1.1	1.8	0.9	1.4	2.3
1934	0.2	0.2	0.4	0.7	1.2	1.9	0.9	1.4	2.3
1935	0.3	0.2	0.5	0.7	1.3	2.0	1.0	1.5	2.5
1936	0.7	0.4	1.1	0.8	1.3	2.1	1.5	1.7	3.2
1937	0.8	0.5	1.3	0.8	1.3	2.1	1.6	1.8	3.4
1938	1.2	3.9	5.1	0.8	1.3	2.1	2.0	5.2	7.2
1939	0.5	0.8	1.3	0.8	1.2	2.0	1.3	2.0	3.3
1940	0.7	2.7	3.4	0.8	1.3	2.1	1.5	4.0	5.5
1941	0.3	1.3	1.6	1.0	2.1	3.1	1.3	3.4	4.7
1942	0.7	3.7	4.4	1.2	2.6	3.8	1.9	6.3	8.2
1943	0.7	0.5	1.2	1.6	3.4	5.0	2.3	3.9	6.2
1944	0.4	1.9	2.3	1.6	3.9	5.5	2.0	5.8	7.8
1945	0.5	1.7	2.2	1.7	4.5	6.2	2.2	6.2	8.4
1946	1.3	2.9	4.2	2.5	5.1	7.6	3.8	8.0	11.8
1947	1.5	7.0	8.5	2.1	4.1	6.2	3.6	11.1	14.7
1948	2.6	5.5	8.1	2.6	5.3	7.9	5.2	10.8	16.0
1949	4.3	5.5	9.8	2.3	4.8	7.1	6.5	10.3	16.9
1950	9.5	1.3	10.8	0.6	1.4	2.0	10.1	2.7	12.8
1951	19.6	1.6	21.2	0.6	1.5	2.1	20.2	3.1	23.3

**TABLE 58. New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public Telephone Companies, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	10.3	15.4	25.7	2.8	5.5	8.3	13.1	20.9	34.0
1927	11.0	16.5	27.5	3.5	7.0	10.5	14.5	23.5	38.0
1928	14.2	19.6	33.8	3.7	7.4	11.1	17.9	27.0	44.9
1929	18.5	26.1	44.6	4.1	8.2	12.3	22.6	34.3	56.9
1930	11.5	31.3	42.8	4.5	8.9	13.4	16.0	40.2	56.2
1931	7.3	23.6	30.9	4.4	8.7	13.1	11.7	32.3	44.0
1932	4.3	13.8	18.1	4.0	8.0	12.0	8.3	21.8	30.1
1933	2.3	11.3	13.6	3.3	6.6	9.9	5.6	17.9	23.5
1934	0.8	12.1	12.9	3.4	6.8	10.2	4.2	18.9	23.1
1935	0.4	14.2	14.6	3.4	6.9	10.3	3.8	21.1	24.9
1936	3.5	11.9	15.4	3.6	7.3	10.9	7.1	19.2	26.3
1937	5.4	15.4	20.8	4.0	7.8	11.8	9.4	23.2	32.6
1938	4.6	15.6	20.2	4.1	8.0	12.1	8.7	23.6	32.3
1939	5.7	17.6	23.3	4.2	8.2	12.4	9.9	25.8	35.7
1940	7.4	13.3	20.7	4.5	8.8	13.3	11.9	22.1	34.0
1941	1.6	20.8	22.4	4.9	9.5	14.4	6.5	30.3	36.8
1942	1.6	18.2	19.8	5.1	9.9	15.0	6.7	28.1	34.8
1943	1.2	9.2	10.4	5.1	9.8	14.9	6.3	19.0	25.3
1944	2.3	10.6	12.9	5.6	10.9	16.5	7.9	21.5	29.4
1945	12.0	11.0	23.0	6.3	10.7	17.0	18.3	21.7	40.0
1946	25.8	18.8	44.6	9.0	14.7	23.7	34.8	33.5	68.3
1947	35.3	46.0	81.3	10.2	18.8	29.0	45.5	64.8	110.3
1948	46.0	57.6	103.6	10.2	21.7	31.9	56.2	79.3	135.5
1949	51.3	63.4	114.7	11.7	27.2	38.9	63.0	90.6	153.6
1950	47.3	65.7	113.0	12.1	31.2	43.3	59.4	96.9	156.3
1951	52.8	70.1	122.9	14.0	34.5	48.5	66.8	104.6	171.4

TABLE 59. New Investment in Durable Physical Assets and Repair and Maintenance, Private Telephone Companies, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	9.1	14.0	23.1	2.2	4.8	7.0	11.3	18.8	30.1
1927.....	9.6	14.8	24.4	2.8	6.2	9.0	12.4	21.0	33.4
1928.....	12.4	17.4	29.8	2.9	6.6	9.5	15.3	24.0	39.3
1929.....	16.2	23.3	39.5	3.2	7.3	10.5	19.4	30.6	50.0
1930.....	9.4	28.7	38.1	3.6	7.9	11.5	13.0	36.6	49.6
1931.....	5.4	21.3	26.7	3.5	7.7	11.2	8.9	29.0	37.9
1932.....	3.4	12.8	16.2	3.2	7.1	10.3	6.6	19.9	26.5
1933.....	1.9	10.7	12.6	2.6	5.8	8.4	4.5	16.5	21.0
1934.....	0.4	11.6	12.0	2.7	6.0	8.7	3.1	17.6	20.7
1935.....	0.2	13.3	13.5	2.7	6.1	8.8	2.9	19.4	22.3
1936.....	2.8	11.1	13.9	2.8	6.5	9.3	5.6	17.6	23.2
1937.....	4.7	14.5	19.2	3.2	6.9	10.1	7.9	21.4	29.3
1938.....	3.8	14.6	18.4	3.2	7.1	10.3	7.0	21.7	28.7
1939.....	4.8	16.4	21.2	3.3	7.3	10.6	8.1	23.7	31.8
1940.....	6.4	12.1	18.5	3.6	7.8	11.4	10.0	19.9	29.9
1941.....	1.0	19.4	20.4	3.9	8.4	12.3	4.9	27.8	32.7
1942.....	0.7	16.9	17.6	4.2	8.9	13.1	4.9	25.8	30.7
1943.....	0.4	8.2	8.6	4.2	8.9	13.1	4.6	17.1	21.7
1944.....	1.0	9.9	10.9	4.7	9.9	14.6	5.7	19.8	25.5
1945.....	10.6	10.4	21.0	5.3	9.6	14.9	15.9	20.0	35.9
1946.....	23.8	18.0	41.8	7.7	13.6	21.3	31.5	31.6	63.1
1947.....	32.6	42.7	75.3	8.7	17.5	26.2	41.3	60.2	101.5
1948.....	39.7	48.7	88.4	8.0	19.4	27.4	47.7	68.1	115.8
1949.....	44.5	56.0	100.5	9.9	25.3	35.2	54.4	81.3	135.7
1950.....	39.7	58.7	98.4	10.4	29.3	39.7	50.1	88.0	138.1
1951.....	45.6	60.4	106.0	11.8	32.0	43.8	57.4	92.4	149.8

TABLE 60. New Investment in Durable Physical Assets and Repair and Maintenance, Public Telephone Companies, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	1.2	1.4	2.6	0.6	0.7	1.3	1.8	2.1	3.9
1927.....	1.4	1.7	3.1	0.7	0.8	1.5	2.1	2.5	4.6
1928.....	1.3	2.2	4.0	0.8	0.8	1.6	2.6	3.0	5.6
1929.....	2.3	2.8	5.1	0.9	0.9	1.8	3.2	3.7	6.9
1930.....	2.1	2.6	4.7	0.9	1.0	1.9	3.0	3.6	6.6
1931.....	1.9	2.3	4.2	0.9	1.0	1.9	2.8	3.3	6.1
1932.....	0.9	1.0	1.9	0.8	0.9	1.7	1.7	1.9	3.6
1933.....	0.4	0.6	1.0	0.7	0.8	1.5	1.1	1.4	2.5
1934.....	0.4	0.5	0.9	0.7	0.8	1.5	1.1	1.3	2.4
1935.....	0.2	0.9	1.1	0.7	0.8	1.5	0.9	1.7	2.6
1936.....	0.7	0.8	1.5	0.8	0.8	1.6	1.5	1.6	3.1
1937.....	0.7	0.9	1.6	0.8	0.9	1.7	1.5	1.8	3.3
1938.....	0.8	1.0	1.8	0.9	0.9	1.8	1.7	1.9	3.6
1939.....	0.9	1.2	2.1	0.9	0.9	1.8	1.8	2.1	3.9
1940.....	1.0	1.2	2.2	0.9	1.0	1.9	1.9	2.2	4.1
1941.....	0.6	1.4	2.0	1.0	1.1	2.1	1.6	2.5	4.1
1942.....	0.9	1.3	2.2	0.9	1.0	1.9	1.8	2.3	4.1
1943.....	0.8	1.0	1.8	0.9	0.9	1.8	1.7	1.9	3.6
1944.....	1.3	0.7	2.0	0.9	1.0	1.9	2.2	1.7	3.9
1945.....	1.4	0.6	2.0	1.0	1.1	2.1	2.4	1.7	4.1
1946.....	2.0	0.8	2.8	1.3	1.1	2.4	3.3	1.9	5.2
1947.....	2.7	3.3	6.0	1.5	1.3	2.8	4.2	4.6	8.8
1948.....	6.3	8.9	15.2	2.2	2.3	4.5	8.5	11.2	19.7
1949.....	6.8	7.4	14.2	1.8	1.9	3.7	8.6	9.3	17.9
1950.....	7.6	7.0	14.6	1.7	1.9	3.6	9.3	8.9	18.2
1951.....	7.2	9.7	16.9	2.2	2.5	4.7	9.4	12.2	21.6

**TABLE 61. New Investment in Durable Physical Assets and Repair and Maintenance,  
Municipal Waterworks, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	2.2	1.0	3.2	1.6	1.2	2.8	3.8	2.2	6.0
1927	2.5	1.2	3.7	1.9	1.4	3.3	4.4	2.6	7.0
1928	2.8	1.3	4.1	2.0	1.4	3.4	4.8	2.7	7.5
1929	3.3	1.5	4.8	2.1	1.5	3.6	5.4	3.0	8.4
1930	3.3	1.5	4.8	2.2	1.6	3.8	5.5	3.1	8.6
1931	2.7	1.3	4.0	2.4	1.8	4.2	5.1	3.1	8.2
1932	2.5	1.2	3.7	2.1	1.5	3.6	4.6	2.7	7.3
1933	2.3	1.0	3.3	1.6	1.1	2.7	3.9	2.1	6.0
1934	1.8	0.9	2.7	1.3	0.9	2.2	3.1	1.8	4.9
1935	2.2	1.0	3.2	1.3	1.0	2.3	3.5	2.0	5.5
1936	2.3	1.0	3.3	1.4	1.1	2.5	3.7	2.1	5.8
1937	2.3	1.1	3.4	1.6	1.2	2.8	3.9	2.3	6.2
1938	2.5	1.1	3.6	1.8	1.4	3.2	4.3	2.5	6.8
1939	1.2	0.9	2.1	2.0	1.4	3.4	4.7	2.6	7.3
1940	1.8	0.9	2.7	1.8	1.3	3.1	3.6	2.2	5.8
1941	2.0	0.9	2.9	2.0	1.5	3.5	4.0	2.4	6.4
1942	1.9	0.9	2.8	1.9	1.4	3.3	3.8	2.3	6.1
1943	2.1	0.9	3.0	2.1	1.5	3.6	4.2	2.4	6.6
1944	1.9	0.9	2.8	2.5	1.8	4.3	4.4	2.7	7.1
1945	3.2	1.5	4.7	2.6	1.9	4.5	5.8	3.4	9.2
1946	5.7	2.7	8.4	2.8	2.0	4.8	8.5	4.7	13.2
1947	6.8	3.2	10.0	3.1	2.2	5.3	9.9	5.4	15.3
1948	9.5	4.4	13.9	2.8	2.0	4.8	12.3	6.4	18.7
1949	13.1	4.5	17.6	4.0	1.6	5.6	17.1	6.1	23.2
1950	20.0	4.4	24.4	4.7	1.7	6.4	24.7	6.1	30.8
1951	49.1	5.4	54.5	4.9	1.7	6.6	54.0	7.1	61.1

**TABLE 62. New Investment in Durable Physical Assets and Repair and Maintenance,  
Other Private and Public Utilities, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	3.4	6.2	9.6	1.8	7.6	9.4	5.2	13.8	19.0
1927	2.0	7.2	9.2	2.1	9.8	11.9	4.1	17.0	21.1
1928	4.5	13.7	18.2	2.2	9.9	12.1	6.7	23.6	30.3
1929	7.1	13.1	20.2	2.0	7.5	9.5	9.1	20.6	29.7
1930	8.0	9.8	17.8	2.0	7.7	9.7	10.0	17.5	27.5
1931	4.0	6.2	10.2	1.7	6.1	7.8	5.7	12.3	18.0
1932	1.5	3.3	4.8	1.6	5.7	7.3	3.1	9.0	12.1
1933	1.3	2.5	3.8	1.4	5.3	6.7	2.7	7.8	10.5
1934	1.4	4.0	5.4	1.6	6.6	8.2	3.0	10.6	13.6
1935	1.7	4.9	6.6	1.8	7.4	9.2	3.5	12.3	15.8
1936	6.6	6.7	13.3	2.9	7.5	10.4	9.5	14.2	23.7
1937	6.5	8.6	15.1	3.0	8.5	11.5	9.5	17.1	26.6
1938	5.1	12.9	18.0	3.3	9.7	13.0	8.4	22.6	31.0
1939	5.2	9.2	14.4	3.3	10.9	14.2	8.5	20.1	28.6
1940	6.2	11.7	17.9	4.1	14.9	19.0	10.3	26.6	36.9
1941	10.6	11.0	21.6	4.8	20.0	24.8	15.4	31.0	46.4
1942	25.2	19.7	44.9	5.5	26.2	31.7	30.7	45.9	76.6
1943	56.9	126.8	183.7	5.9	31.5	37.4	62.8	158.3	221.1
1944	9.1	182.8	191.9	8.8	48.3	57.1	17.9	231.1	249.0
1945	6.8	72.5	79.3	8.2	35.0	43.2	15.0	107.5	122.5
1946	8.0	55.4	63.4	7.8	39.5	47.3	15.8	94.9	110.7
1947	16.2	76.6	92.8	10.3	49.6	59.9	26.5	126.2	152.7
1948	16.1	48.6	64.7	8.5	58.4	66.9	24.6	107.0	131.6
1949	24.4	48.1	72.5	6.4	59.9	66.3	30.8	108.0	138.8
1950	71.9	45.2	117.1	6.7	57.3	64.0	78.6	102.5	181.1
1951	35.1	50.7	85.8	6.2	57.4	63.6	41.3	108.1	149.4

1. Includes capital expenditures made on Canol project by the United States Government.



TABLE 63. New Investment in Durable Physical Assets and Repair and Maintenance, Other Private Utilities, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	1.7	5.8	7.5	1.7	7.3	9.0	3.4	13.1	16.5
1927	1.9	6.8	8.7	2.0	9.4	11.4	3.9	16.2	20.1
1928	4.4	8.5	12.9	2.1	9.5	11.6	6.5	18.0	24.5
1929	7.0	9.8	16.8	2.0	7.2	9.2	9.0	17.0	26.0
1930	5.6	9.2	14.8	1.9	7.4	9.3	7.5	16.6	24.1
1931	3.3	6.0	9.3	1.7	5.9	7.6	5.0	11.9	16.9
1932	1.4	3.2	4.6	1.6	5.5	7.1	3.0	8.7	11.7
1933	1.3	2.4	3.7	1.4	5.1	6.5	2.7	7.5	10.2
1934	1.4	3.9	5.3	1.6	6.3	7.9	3.0	10.2	13.2
1935	1.7	4.8	6.5	1.7	7.1	8.8	3.4	11.9	15.3
1936	2.3	5.9	8.2	1.7	7.0	8.7	4.0	12.9	16.9
1937	2.6	7.0	9.6	2.0	8.0	10.0	4.6	15.0	19.6
1938	2.7	10.1	12.8	2.3	9.0	11.3	5.0	19.1	24.1
1939	2.8	7.4	10.2	2.2	10.1	12.3	5.0	17.5	22.5
1940	5.7	10.0	15.7	3.0	13.6	16.6	8.7	23.6	32.3
1941	9.3	9.6	18.9	3.6	18.4	22.0	12.9	28.0	40.9
1942	2.6	6.2	8.8	4.2	24.3	28.5	6.8	30.5	37.3
1943	2.4	7.5	9.9	4.7	28.5	33.2	7.1	36.0	43.1
1944	3.5	9.1	12.6	7.5	41.9	49.4	11.0	51.0	62.0
1945	6.3	13.2	19.5	6.5	24.8	31.3	12.8	38.0	50.8
1946	7.0	45.6	52.6	5.9	30.4	36.3	12.9	76.0	88.9
1947	11.1	58.5	69.6	7.9	41.8	49.7	19.0	100.3	119.3
1948	10.5	41.1	51.6	6.3	46.5	52.8	16.8	87.6	104.4
1949	18.0	46.3	64.3	5.3	52.0	57.3	23.3	98.3	121.6
1950	64.9	42.8	107.7	4.8	48.6	53.4	69.7	91.4	161.1
1951	25.4	46.2	71.6	4.3	46.7	53.0	29.7	94.9	124.6

TABLE 64. New Investment in Durable Physical Assets and Repair and Maintenance, Other Public Utilities, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	1.7	0.4	2.1	0.1	0.3	0.4	1.8	0.7	2.5
1927	0.1	0.4	0.5	0.1	0.4	0.5	0.2	0.8	1.0
1928	0.1	5.2	5.3	0.1	0.4	0.5	0.2	5.6	5.8
1929	0.1	3.3	3.4	— <sup>1</sup>	0.3	0.3	0.1	3.6	3.7
1930	2.4	0.6	3.0	0.1	0.3	0.4	2.5	0.9	3.4
1931	0.7	0.2	0.9	— <sup>1</sup>	0.2	0.2	0.7	0.4	1.1
1932	0.1	0.1	0.2	— <sup>1</sup>	0.2	0.2	0.1	0.3	0.4
1933	— <sup>1</sup>	0.1	0.1	— <sup>1</sup>	0.2	0.2	— <sup>1</sup>	0.3	0.3
1934	— <sup>1</sup>	0.1	0.1	— <sup>1</sup>	0.3	0.3	— <sup>1</sup>	0.4	0.4
1935	— <sup>1</sup>	0.1	0.1	0.1	0.3	0.4	0.1	0.4	0.5
1936	4.3	0.8	5.1	1.2	0.5	1.7	5.5	1.3	6.8
1937	3.9	1.6	5.5	1.0	0.5	1.5	4.9	2.1	7.0
1938	2.4	2.8	5.2	1.0	0.7	1.7	3.4	3.5	6.9
1939	2.4	1.8	4.2	1.1	0.8	1.9	3.5	2.6	6.1
1940	0.5	1.7	2.2	1.1	1.3	2.4	1.6	3.0	4.6
1941	1.3	1.4	2.7	1.2	1.6	2.8	2.5	3.0	5.5
1942	22.6	13.5	36.1 <sup>2</sup>	1.3	1.9	3.2	23.9	15.4	39.3
1943	54.5	119.3	173.8 <sup>2</sup>	1.2	3.0	4.2	55.7	122.3	178.0
1944	5.6	173.7	179.3 <sup>2</sup>	1.3	6.4	7.7	6.9	180.1	187.0
1945	0.5	59.3	59.8	1.7	10.2	11.9	2.2	69.5	71.7
1946	1.0	9.8	10.8	1.9	9.1	11.0	2.9	18.9	21.8
1947	5.1	18.1	23.2	2.4	7.8	10.2	7.5	25.9	33.4
1948	5.6	7.5	13.1	2.2	11.9	14.1	7.8	19.4	27.2
1949	6.4	1.8	8.2	1.1	7.9	9.0	7.5	9.7	17.2
1950	7.0	2.4	9.4	1.9	8.7	10.6	8.9	11.1	20.0
1951	9.7	4.5	14.2	1.9	8.7	10.6	11.6	13.2	24.8

1. Less than \$50,000.

2. Includes capital expenditures made on Canol project by the United States Government.

**TABLE 65. New Investment in Durable Physical Assets and Repair and Maintenance, Other Public Utilities, by Type, Canada, 1945-1951**

(Millions of Dollars)

Type and Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
<b>Water Transportation:</b>									
1945 .....	1.5	60.6	62.1	4.9	17.5	22.4	6.4	78.1	84.5
1946 .....	1.8	25.4	28.2	3.0	15.2	18.2	4.8	41.6	46.4
1947 .....	3.3	31.1	34.4	5.3	22.8	28.1	8.6	53.9	62.5
1948 .....	4.9	16.4	21.3	3.7	16.9	20.6	8.6	33.3	41.9
1949 .....	7.9	15.7	23.6	0.9	23.0	23.9	8.8	38.7	47.5
1950 .....	7.8	15.4	23.2	2.4	16.8	19.2	10.2	32.2	42.4
1951 .....	7.3	24.2	31.5	2.1	16.7	18.8	9.4	40.9	50.3
<b>Motor Carriers:</b>									
1945 .....	1.5	5.1	6.6	1.0	12.2	13.2	2.5	17.3	19.8
1946 .....	2.3	14.7	17.0	1.3	18.1	19.4	3.6	32.8	36.4
1947 .....	5.2	23.1	28.3	1.8	18.2	20.0	7.0	41.3	48.3
1948 .....	3.1	14.9	18.0	1.5	25.9	27.4	4.6	40.8	45.4
1949 .....	1.9	16.0	17.9	0.9	24.3	25.2	2.8	40.3	43.1
1950 .....	1.5	16.7	18.2	0.8	25.6	26.4	2.3	42.3	44.6
1951 .....	4.4	11.5	15.9	0.9	25.8	26.7	5.3	37.3	42.6
<b>Grain Elevators:</b>									
1945 .....	2.3	0.5	2.8	1.3	1.2	2.5	3.6	1.7	5.3
1946 .....	2.4	0.6	3.0	2.1	1.9	4.0	4.5	2.5	7.0
1947 .....	3.5	0.7	4.2	1.5	0.9	2.4	5.0	1.6	6.6
1948 .....	5.6	1.2	6.8	1.7	1.3	3.0	7.3	2.5	9.8
1949 .....	5.7	1.5	7.2	2.4	1.7	4.1	8.1	3.2	11.3
1950 .....	5.1	2.1	7.2	1.9	2.1	4.0	7.0	4.2	11.2
1951 .....	4.1	1.6	5.7	1.7	2.1	3.8	5.8	3.7	9.5
<b>Broadcasting:</b>									
1945 .....	0.6	0.7	1.3	0.1	0.3	0.4	0.7	1.0	1.7
1946 .....	0.8	1.2	2.0	0.1	0.3	0.4	0.9	1.5	2.4
1947 .....	1.9	1.9	3.8	0.2	0.4	0.6	2.1	2.3	4.4
1948 .....	1.2	1.8	3.0	0.3	0.5	0.8	1.5	2.3	3.8
1949 .....	1.4	1.2	2.6	0.2	0.4	0.6	1.6	1.6	3.2
1950 .....	1.3	1.2	2.5	0.2	0.4	0.6	1.5	1.6	3.1
1951 .....	2.6	2.3	4.9	0.2	0.4	0.6	2.8	2.7	5.5
<b>Miscellaneous Utilities:</b>									
1945 .....	0.9	2.3	3.2	0.9	3.8	4.7	1.8	6.1	7.9
1946 .....	0.7	9.1	9.8	1.3	4.0	5.3	2.0	13.1	15.1
1947 .....	2.3	14.8	17.1	1.5	7.3	8.8	3.8	22.1	25.9
1948 .....	1.4	8.2	9.6	1.3	13.8	15.1	2.7	22.0	24.7
1949 .....	7.5	7.2	14.7	2.0	10.5	12.5	9.5	17.7	27.2
1950 .....	56.2	3.4	59.6	1.4	12.4	13.8	57.6	15.8	73.4
1951 .....	16.7	2.6	19.3	1.3	12.4	13.7	18.0	15.0	33.0
<b>Capital Items Charged to Operating Expenses:</b>									
1945 .....	—	3.3	3.3	—	—	—	—	3.3	3.3
1946 .....	—	3.4	3.4	—	—	—	—	3.4	3.4
1947 .....	—	5.0	5.0	—	—	—	—	5.0	5.0
1948 .....	—	6.0	6.0	—	—	—	—	6.0	6.0
1949 .....	—	6.5	6.5	—	—	—	—	6.5	6.5
1950 .....	—	6.4	6.4	—	—	—	—	6.4	6.4
1951 .....	—	8.5	8.5	—	—	—	—	8.5	8.5
<b>Total:</b>									
1945 .....	6.8	72.5	79.3	8.2	35.0	43.2	15.0	107.5	122.5
1946 .....	8.0	55.4	63.4	7.3	39.5	47.3	15.8	94.9	110.7
1947 .....	16.2	76.5	92.8	10.3	49.6	59.9	26.5	126.2	152.7
1948 .....	16.2	48.5	64.7	8.5	58.4	66.9	24.7	106.9	131.6
1949 .....	24.4	48.1	72.5	6.4	59.9	66.3	30.8	108.0	138.8
1950 .....	71.9	45.2	117.1	6.7	57.3	64.0	78.6	102.5	181.1
1951 .....	35.1	50.7	85.8	6.2	57.4	63.6	41.3	108.1	149.4

**TABLE 66. New Investment in Durable Physical Assets and Repair and Maintenance, Trade, Finance and Commercial Services, Canada, 1926-1951<sup>1</sup>**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	27.8	22.8	50.6	23.7	19.4	43.1	51.5	42.2	93.7
1927	44.8	28.0	72.8	26.0	20.2	46.2	70.8	48.2	119.0
1928	64.2	40.1	104.3	27.3	20.7	48.0	91.5	60.8	152.3
1929	79.0	51.8	130.8	28.3	22.9	51.2	107.3	74.7	182.0
1930	49.5	32.7	82.2	28.1	22.3	50.4	77.6	55.0	132.6
1931	30.6	17.8	48.4	27.4	22.4	49.8	58.0	40.2	98.2
1932	19.6	10.6	30.2	24.2	19.1	43.3	43.8	29.7	73.5
1933	14.7	7.6	22.3	22.5	17.2	39.7	37.2	24.8	62.0
1934	20.2	12.1	32.3	21.3	17.9	39.2	41.5	30.0	71.5
1935	18.9	11.9	30.8	21.7	18.2	39.9	40.6	30.1	70.7
1936	26.0	19.6	45.6	23.6	19.1	42.7	49.6	38.7	88.3
1937	28.4	23.2	51.6	22.9	20.4	43.3	51.3	43.6	94.9
1938	29.8	25.3	55.1	23.7	21.5	45.2	53.5	46.8	100.3
1939	34.2	27.5	61.7	24.7	21.8	46.5	58.9	49.3	108.2
1940	27.1	28.5	55.6	26.8	24.3	51.1	53.9	52.8	106.7
1941	32.8	47.8	80.6	29.7	27.5	57.2	62.5	75.3	137.8
1942	29.9	31.7	61.6	30.8	29.1	59.9	60.7	60.8	121.5
1943	15.2	15.4	30.6	31.8	28.9	60.7	47.0	44.3	91.3
1944	26.0	33.0	59.0	35.9	29.7	65.6	61.9	62.7	124.6
1945	39.2	47.2	86.4	42.4	33.9	76.3	81.6	81.1	162.7
1946	76.5	60.6	137.1	46.0	39.7	85.7	122.5	100.3	222.8
1947	111.8	89.7	201.5	48.5	47.5	96.0	160.3	137.2	297.5
1948	159.1	122.0	281.1	50.3	50.7	101.0	209.4	172.7	382.1
1949 <sup>2</sup>	141.1	151.9	293.0	60.1	58.7	118.8	201.2	210.6	411.8
1950 <sup>2</sup>	191.9	169.1	361.0	48.3	58.8	107.1	240.2	227.9	468.1
1951 <sup>2</sup>	187.0	181.9	368.9	42.4	56.9	99.3	229.4	236.8	466.2

1. Includes investment, repair and maintenance by government-owned enterprises such as Canadian National Railway hotels and the Bank of Canada.  
2. Includes Newfoundland.

**TABLE 67. New Investment in Durable Physical Assets and Repair and Maintenance, Trade,<sup>1</sup> Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	13.4	10.3	23.7	13.1	9.8	22.9	26.5	20.1	46.6
1927	14.7	12.4	27.1	11.4	8.1	19.5	26.1	20.5	46.6
1928	28.7	21.6	50.3	13.0	8.0	21.0	41.7	29.6	71.3
1929	37.8	29.9	67.7	12.5	7.4	19.9	50.3	37.3	87.6
1930	24.8	17.8	42.6	14.3	9.5	23.8	39.1	27.3	66.4
1931	16.3	8.8	25.1	14.3	10.4	24.7	30.6	19.2	49.8
1932	10.5	6.0	16.5	11.0	8.8	19.8	21.5	14.8	36.3
1933	6.5	3.1	9.6	10.0	7.3	17.3	16.5	10.4	26.9
1934	11.6	6.2	17.8	10.9	7.7	18.6	22.5	13.9	36.4
1935	9.9	5.3	15.2	10.8	7.6	18.4	20.7	12.9	33.6
1936	12.3	6.9	19.2	13.7	9.0	22.7	26.0	15.9	41.9
1937	16.7	11.2	27.9	13.8	10.1	23.9	30.5	21.3	51.8
1938	19.9	14.5	34.4	15.3	11.5	26.8	35.2	26.0	61.2
1939	18.4	11.9	30.3	13.9	9.7	23.6	32.3	21.6	53.9
1940	18.2	16.9	35.1	15.1	11.0	26.1	33.3	27.9	61.2
1941	16.3	15.3	31.6	16.4	11.0	27.4	32.7	26.3	59.0
1942	18.9	15.5	34.4	19.7	14.3	34.0	38.6	29.8	68.4
1943	7.8	5.8	13.6	19.0	13.5	32.5	26.8	19.3	46.1
1944	18.4	19.4	37.8	23.0	15.1	38.1	41.4	34.5	75.9
1945	21.9	20.1	42.0	23.7	17.9	41.6	45.6	38.0	83.6
1946	47.3	35.6	82.9	25.7	15.9	41.6	73.0	51.5	124.5
1947	67.8	50.9	118.7	27.1	19.1	46.2	94.9	70.0	164.9
1948	95.1	66.6	161.7	34.5	24.2	58.7	129.6	90.8	220.4
1949	102.8	90.3	193.1	31.8	29.6	61.4	134.6	119.9	254.5
1950	127.8	83.6	211.4	29.0	25.5	54.5	156.8	109.1	265.9
1951	112.2	94.1	206.3	26.9	25.3	52.2	139.1	119.4	258.5

1. Includes both wholesale and retail trade.



**TABLE 68. New Investment in Durable Physical Assets and Repair and Maintenance, Finance, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	5.9	1.7	7.6	6.5	2.1	8.6	12.4	3.8	16.2
1927.....	10.4	3.2	13.6	8.1	1.9	10.0	18.5	5.1	23.6
1928.....	11.1	3.1	14.2	6.4	1.6	8.0	17.5	4.7	22.2
1929.....	15.1	4.5	19.6	5.4	1.2	6.6	20.5	5.7	26.2
1930.....	10.8	3.0	13.8	5.4	1.2	6.6	16.2	4.2	20.4
1931.....	9.1	2.0	11.1	5.9	1.6	7.5	15.0	3.6	18.6
1932.....	6.6	1.5	8.1	8.2	2.7	10.9	14.8	4.2	19.0
1933.....	4.4	0.9	5.3	6.7	2.0	8.7	11.1	2.9	14.0
1934.....	3.9	0.8	4.7	4.1	1.2	5.3	8.0	2.0	10.0
1935.....	3.8	0.8	4.6	4.3	1.2	5.5	8.1	2.0	10.1
1936.....	3.9	0.9	4.8	3.5	0.9	4.4	7.4	1.8	9.2
1937.....	4.5	1.2	5.7	3.6	1.1	4.7	8.1	2.3	10.4
1938.....	4.5	1.3	5.8	3.6	1.1	4.7	8.1	2.4	10.5
1939.....	6.0	1.5	7.5	4.3	1.2	5.5	10.3	2.7	13.0
1940.....	5.1	1.7	6.8	5.0	1.5	6.5	10.1	3.2	13.3
1941.....	4.7	1.6	6.3	4.2	0.9	5.1	8.9	2.5	11.4
1942.....	3.8	1.1	4.9	4.0	1.0	5.0	7.8	2.1	9.9
1943.....	2.6	0.7	3.3	5.4	1.3	6.7	8.0	2.0	10.0
1944.....	4.0	1.5	5.5	5.5	1.3	6.8	9.5	2.8	12.3
1945.....	7.7	2.6	10.3	8.3	1.9	10.2	16.0	4.5	20.5
1946.....	11.2	3.8	15.0	6.7	1.4	8.1	17.9	5.2	23.1
1947.....	15.5	5.2	20.7	7.1	1.7	8.8	22.6	6.9	29.5
1948.....	26.1	7.2	33.3	5.9	1.0	6.9	32.0	8.2	40.2
1949.....	23.5	8.5	32.0	8.2	1.7	10.5	32.3	10.2	42.5
1950.....	37.1	8.4	45.5	6.6	1.5	8.1	43.7	9.9	53.6
1951.....	44.9	9.1	54.0	5.5	1.4	6.9	50.4	10.5	60.9

**TABLE 69. New Investment in Durable Physical Assets and Repair and Maintenance, Commercial Services, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926.....	8.5	10.8	19.3	4.1	7.5	11.6	12.6	18.3	30.9
1927.....	19.7	12.4	32.1	6.5	10.2	16.7	26.2	22.6	48.8
1928.....	24.4	15.4	39.8	7.9	11.1	19.0	32.3	26.5	58.8
1929.....	26.1	17.4	43.5	10.4	14.3	24.7	36.5	31.7	68.2
1930.....	13.9	11.9	25.8	8.4	11.6	20.0	22.3	23.5	45.8
1931.....	5.2	7.0	12.2	7.2	10.4	17.6	12.4	17.4	29.8
1932.....	2.5	3.1	5.6	5.0	7.6	12.6	7.5	10.7	18.2
1933.....	3.8	3.6	7.4	5.8	7.9	13.7	9.6	11.5	21.1
1934.....	4.7	5.1	9.8	6.3	9.0	15.3	11.0	14.1	25.1
1935.....	5.2	5.8	11.0	6.6	9.4	16.0	11.8	15.2	27.0
1936.....	9.8	11.8	21.6	6.4	9.2	15.6	16.2	21.0	37.2
1937.....	7.2	10.8	18.0	5.5	9.2	14.7	12.7	20.0	32.7
1938.....	5.4	9.5	14.9	4.8	8.9	13.7	10.2	18.4	28.6
1939.....	9.8	14.1	23.9	6.5	10.9	17.4	16.3	25.0	41.3
1940.....	3.8	9.9	13.7	6.7	11.8	18.5	10.5	21.7	32.2
1941.....	11.8	30.9	42.7	9.1	15.6	24.7	20.9	46.5	67.4
1942.....	7.2	15.1	22.3	7.1	13.8	20.9	14.3	28.3	43.2
1943.....	4.8	8.9	13.7	7.4	14.1	21.5	12.2	23.0	35.2
1944.....	3.6	12.1	15.7	7.4	13.3	20.7	11.0	25.4	36.4
1945.....	9.6	24.5	34.1	10.4	14.1	24.5	20.0	38.6	58.6
1946.....	18.0	21.2	39.2	13.6	22.4	36.0	31.6	43.6	75.2
1947.....	28.5	33.6	62.1	14.3	26.7	41.0	42.8	60.3	103.1
1948.....	37.9	48.2	86.1	9.9	25.5	35.4	47.8	73.7	121.5
1949.....	14.8	53.1	67.9	19.5	27.4	46.9	34.3	80.5	114.8
1950.....	27.0	77.1	104.1	12.7	31.8	44.5	39.7	108.9	148.6
1951.....	29.9	78.7	108.6	10.0	30.2	40.2	39.9	108.9	148.8

TABLE 70. New Investment in Durable Physical Assets and Repair and Maintenance, Housing,<sup>1</sup>  
Canada,<sup>2</sup> 1926-1951

(Millions of Dollars)

Year	Public <sup>3</sup>			Private			Public and Private		
	New Investment	Repair and Maintenance	Sub-total	New Investment	Repair and Maintenance	Sub-total	New Investment	Repair and Maintenance	Total
1926	—	—	—	211.9	49.3	261.2	211.9	49.3	261.2
1927	—	—	—	216.6	50.1	266.7	216.6	50.1	266.7
1928	—	—	—	235.7	54.0	289.7	235.7	54.0	289.7
1929	—	—	—	247.2	56.4	303.6	247.2	56.4	303.6
1930	—	—	—	204.0	52.1	256.1	204.0	52.1	256.1
1931	—	—	—	167.7	45.6	213.3	167.7	45.6	213.3
1932	—	—	—	95.6	40.0	135.6	95.6	40.0	135.6
1933	—	—	—	76.2	39.6	115.8	76.2	39.6	115.8
1934	—	—	—	97.7	44.1	141.8	97.7	44.1	141.8
1935	—	—	—	113.7	45.8	159.5	113.7	45.8	159.5
1936	—	—	—	139.0	50.1	189.1	139.0	50.1	189.1
1937	—	—	—	175.5	54.8	230.3	175.5	54.8	230.3
1938	—	—	—	158.7	53.2	211.9	158.7	53.2	211.9
1939	—	—	—	185.3	56.6	241.9	185.3	56.6	241.9
1940	—	—	—	199.5	63.0	262.5	199.5	63.0	262.5
1941	10.5	— <sup>4</sup>	10.5	233.2	76.7	309.9	243.7	76.7	320.4
1942	30.0	— <sup>4</sup>	30.0	193.5	86.7	280.2	223.5	86.7	310.2
1943	30.2	— <sup>4</sup>	30.2	173.7	87.6	261.3	203.9	87.6	291.5
1944	12.0	0.1	12.1	224.8	91.7	316.5	236.8	91.8	328.6
1945	13.5	0.3	13.8	272.4	96.0	368.4	285.9	96.3	382.2
1946	56.6	3.6	60.2	355.7	101.7	457.4	412.3	105.3	517.6
1947	36.2	1.9	38.1	503.8	128.9	632.7	540.0	130.8	670.8
1948	68.3	2.6	70.9	599.9	159.3	759.2	668.2	161.9	830.1
1949	72.8	2.1	74.9	703.2	173.9	877.1	776.0	176.0	952.0
1950	53.0	2.0	55.0	792.3	189.0	981.3	845.3	191.0	1,036.3
1951	41.0	2.0	43.0	866.0	199.0	1,065.0	907.0	201.0	1,108.0

1. Excludes supplementary house-building costs (see Appendix B).

2. Includes estimates for the Yukon and Northwest Territories for all years and for Newfoundland for 1949 to 1951. For these reasons totals are not fully comparable with those published in *Residential Real Estate in Canada*.

3. Outlays on public housing were very small prior to 1941 and are included in government departments.

4. Less than \$50,000.

TABLE 71. Dwellings Completed, Net Family Formation, Non-Family Households Occupying Separate Dwellings  
and Families Without Homes of Their Own, Canada, 1926-1951

(Thousands of Units)

Year	Dwellings Completed <sup>1</sup>	Net Family Formation	Non-Family Households Occupying Separate Dwellings	Families Without Homes of Their Own
1926	55.2	38	274	224
1927	56.8	44	281	224
1928	62.9	47	288	217
1929	64.7	48	295	212
1930	53.0	39	302	211
1931	47.8	29	309	222
1932	28.1	19	315	261
1933	21.9	20	321	274
1934	27.7	28	327	260
1935	32.9	30	333	253
1936	39.3	32	340	256
1937	48.6	39	347	248
1938	44.0	39	353	253
1939	51.7	54	360	269
1940	52.5	70	367	283
1941	56.8	71	373	310
1942	47.2	76	365	334
1943	36.8	58	357	354
1944	42.8	50	349	360
1945	48.5	59	341	371
1946	67.2	108	333	411
1947	79.2	75	348	434
1948	81.2	83	364	462
1949 <sup>2</sup>	91.8	77	383	479
1950 <sup>2</sup>	92.0	74	— <sup>3</sup>	— <sup>3</sup>
1951 <sup>2</sup>	88.0	89	— <sup>3</sup>	— <sup>3</sup>

1. Includes conversions.

2. Includes Newfoundland.

3. Not available.

TABLE 72. New Residential Construction and Personal Disposable Income, Canada, 1926-1951

(Millions of Dollars)

Year	New Residential Construction <sup>1</sup>			Personal Disposable Income
	Single Dwellings	Multiple Dwellings	All Dwellings	
1926	115.9	73.8	189.7	4,039
1927	111.7	82.5	194.2	4,246
1928	117.2	100.7	217.9	4,559
1929	116.8	112.5	229.3	4,589
1930	95.4	89.8	185.2	4,292
1931	81.5	68.8	150.3	3,629
1932	46.1	36.6	82.7	3,001
1933	37.9	27.4	65.3	2,774
1934	49.2	35.6	84.8	3,089
1935	56.9	43.0	99.9	3,293
1936	68.5	54.5	123.0	3,482
1937	85.7	70.9	156.6	3,930
1938	75.8	65.3	141.1	3,975
1939	91.8	74.2	166.0	4,208
1940	90.1	88.9	179.0	4,808
1941	125.9	92.5	218.4	5,600
1942	126.6	68.6	195.2	6,980
1943	134.1	42.2	176.3	7,478
1944	165.2	49.5	214.7	8,164
1945	214.4	54.6	269.0	8,430
1946	326.6	63.9	390.5	8,965
1947	413.8	92.6	506.4	9,599
1948	520.9	108.3	629.2	11,121
1949	587.8	140.0	727.8	11,968 <sup>2</sup>
1950	615.8	168.9	784.7	12,692 <sup>2</sup>
1951	661.0	181.0	842.0	14,500 <sup>2</sup>

1. Excludes major improvements and alterations.

2. Includes an allowance for Newfoundland estimated to be in the neighbourhood of \$150 million.

TABLE 73. New Investment in Durable Physical Assets and Repair and Maintenance, All Private and Public Institutions, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	33.3	4.2	37.5	10.4	2.3	12.7	43.7	6.5	50.2
1927	40.1	5.2	45.3	11.5	2.5	14.0	51.6	7.7	59.3
1928	41.8	5.5	47.3	11.5	2.6	14.1	53.3	8.1	61.4
1929	47.7	6.4	54.1	11.4	2.5	13.9	59.1	8.9	68.0
1930	56.1	7.6	63.7	11.6	2.5	14.1	67.7	10.1	77.8
1931	45.5	6.4	51.9	12.1	2.6	14.7	57.6	9.0	66.6
1932	28.4	3.9	32.3	11.0	2.4	13.4	39.4	6.3	45.7
1933	12.9	1.7	14.6	9.3	2.1	11.4	22.2	3.8	26.0
1934	11.0	1.6	12.6	8.9	2.2	11.1	19.9	3.8	23.7
1935	12.2	1.7	13.9	9.0	2.2	11.2	21.2	3.9	25.1
1936	16.5	2.2	18.7	9.2	2.2	11.4	25.7	4.4	30.1
1937	19.4	2.8	22.2	9.7	2.2	11.9	29.1	5.0	34.1
1938	23.6	3.5	27.1	10.5	2.4	12.9	34.1	5.9	40.0
1939	26.3	3.7	30.0	10.5	2.4	12.9	36.8	6.1	42.9
1940	15.9	2.4	18.3	10.1	2.4	12.5	26.0	4.8	30.8
1941	14.8	2.2	17.0	10.7	2.4	13.1	25.5	4.6	30.1
1942	13.9	2.0	15.9	10.7	2.4	13.1	24.6	4.4	29.0
1943	16.7	2.6	19.3	11.4	2.6	14.0	28.1	5.2	33.3
1944	24.5	3.6	28.1	13.0	3.1	16.1	37.5	6.7	44.2
1945	40.1	5.9	46.0	14.1	3.4	17.5	54.2	9.3	63.5
1946	64.7	9.6	74.3	16.2	3.7	19.9	80.9	13.3	94.2
1947	76.3	12.5	88.8	17.4	4.8	22.2	93.7	17.3	111.0
1948	123.6	21.3	144.9	27.5	7.9	35.4	151.1	29.2	180.3
1949 <sup>1</sup>	167.5	22.4	189.9	27.6	6.9	34.5	195.1	29.3	224.4
1950 <sup>1</sup>	185.6	26.3	211.9	28.2	6.6	34.8	213.8	32.9	246.7
1951 <sup>1</sup>	241.1	31.6	272.7	34.3	7.4	41.7	275.4	39.0	314.4

1. Includes Newfoundland.



TABLE 74. New Investment in Durable Physical Assets and Repair and Maintenance, All Private Institutions, Canada, 1926-1951  
(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926 .....	13.2	1.7	14.9	7.3	1.7	9.0	20.5	3.4	23.9
1927 .....	15.2	2.1	17.3	7.9	1.7	9.6	23.1	3.8	26.9
1928 .....	13.9	2.0	15.9	7.8	1.8	9.6	21.7	3.8	25.5
1929 .....	14.6	2.2	16.8	7.6	1.8	9.4	22.2	4.0	26.2
1930 .....	19.5	3.0	22.5	7.6	1.7	9.3	27.1	4.7	31.8
1931 .....	18.8	3.0	21.8	7.7	1.7	9.4	26.5	4.7	31.2
1932 .....	9.3	1.5	10.8	7.1	1.7	8.8	16.4	3.2	19.6
1933 .....	4.0	0.6	4.6	6.3	1.5	7.8	10.3	2.1	12.4
1934 .....	4.1	0.7	4.8	6.3	1.6	7.9	10.4	2.3	12.7
1935 .....	3.9	0.7	4.6	6.3	1.6	7.9	10.2	2.3	12.5
1936 .....	6.0	0.9	6.9	6.3	1.6	7.9	12.3	2.5	14.8
1937 .....	7.3	1.2	8.5	6.6	1.6	8.2	13.9	2.8	16.7
1938 .....	8.5	1.5	10.0	7.0	1.7	8.7	15.5	3.2	18.7
1939 .....	10.2	1.7	11.9	6.9	1.7	8.6	17.1	3.4	20.5
1940 .....	7.4	1.3	8.7	6.6	1.6	8.2	14.0	2.9	16.9
1941 .....	7.5	1.3	8.8	6.7	1.6	8.3	14.2	2.9	17.1
1942 .....	5.2	0.9	6.1	6.5	1.6	8.1	11.7	2.5	14.2
1943 .....	6.0	1.2	7.2	6.4	1.6	8.0	12.4	2.8	15.2
1944 .....	9.0	1.8	10.8	6.9	1.8	8.7	15.9	3.6	19.5
1945 .....	17.3	3.3	20.6	7.3	2.0	9.3	24.6	5.3	29.9
1946 .....	28.2	5.0	33.2	8.6	2.2	10.8	36.8	7.2	44.0
1947 .....	36.0	6.8	42.8	10.1	2.7	12.8	46.1	9.5	55.6
1948 .....	62.8	12.9	75.7	19.9	5.7	25.6	82.7	18.6	101.3
1949 .....	75.3	11.6	86.9	14.8	3.6	18.4	90.1	15.2	105.3
1950 .....	71.5	12.9	84.4	14.3	4.3	18.6	85.8	17.2	103.0
1951 .....	120.5	16.4	136.9	19.6	4.6	24.2	140.1	21.0	161.1

TABLE 75. New Investment in Durable Physical Assets and Repair and Maintenance, All Public Institutions, Canada, 1926-1951  
(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926 .....	20.1	2.5	22.6	3.1	0.6	3.7	23.2	3.1	26.3
1927 .....	24.9	3.1	28.0	3.6	0.8	4.4	28.5	3.9	32.4
1928 .....	27.9	3.5	31.4	3.7	0.8	4.5	31.6	4.3	35.9
1929 .....	33.1	4.2	37.3	3.8	0.7	4.5	36.9	4.9	41.8
1930 .....	36.6	4.6	41.2	4.0	0.8	4.8	40.6	5.4	46.0
1931 .....	26.7	3.4	30.1	4.4	0.9	5.3	31.1	4.3	35.4
1932 .....	19.1	2.4	21.5	3.9	0.7	4.6	23.0	3.1	26.1
1933 .....	8.9	1.1	10.0	3.0	0.6	3.6	11.9	1.7	13.6
1934 .....	6.9	0.9	7.8	2.6	0.6	3.2	9.5	1.5	11.0
1935 .....	8.3	1.0	9.3	2.7	0.6	3.3	11.0	1.6	12.6
1936 .....	10.5	1.3	11.8	2.9	0.6	3.5	13.4	1.9	15.3
1937 .....	12.1	1.6	13.7	3.1	0.6	3.7	15.2	2.2	17.4
1938 .....	15.1	2.0	17.1	3.5	0.7	4.2	18.6	2.7	21.3
1939 .....	16.1	2.0	18.1	3.6	0.7	4.3	19.7	2.7	22.4
1940 .....	8.5	1.1	9.6	3.5	0.8	4.3	12.0	1.9	13.9
1941 .....	7.3	0.9	8.2	4.0	0.8	4.8	11.3	1.7	13.0
1942 .....	8.7	1.1	9.8	4.2	0.8	5.0	12.9	1.9	14.8
1943 .....	10.7	1.4	12.1	5.0	1.0	6.0	15.7	2.4	18.1
1944 .....	15.5	1.8	17.3	6.1	1.3	7.4	21.6	3.1	24.7
1945 .....	22.8	2.6	25.4	6.8	1.4	8.2	29.6	4.0	33.6
1946 .....	36.5	4.6	41.1	7.6	1.5	9.1	44.1	6.1	50.2
1947 .....	40.3	5.7	46.0	7.3	2.1	9.4	47.6	7.8	55.4
1948 .....	60.8	8.4	69.2	7.6	2.2	9.8	68.4	10.6	79.0
1949 .....	92.2	10.8	103.0	12.8	3.3	16.1	105.0	14.1	119.1
1950 .....	114.1	13.4	127.5	13.9	2.3	16.2	128.0	15.7	143.7
1951 .....	120.6	15.2	135.8	14.7	2.8	17.5	135.3	18.0	153.3

**TABLE 76. New Investment in Durable Physical Assets and Repair and Maintenance, Churches, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Equipment	Sub- total	Construc- tion	Equipment	Sub- total	Construc- tion	Equipment	Total
1926	7.9	0.8	8.7	4.3	0.5	4.8	12.2	1.3	13.5
1927	9.3	1.0	10.3	4.7	0.5	5.2	14.0	1.5	15.5
1928	8.6	0.9	9.5	4.5	0.5	5.0	13.1	1.4	14.5
1929	7.2	0.8	8.0	4.2	0.5	4.7	11.4	1.3	12.7
1930	6.8	0.7	7.5	4.1	0.4	4.5	10.9	1.1	12.0
1931	6.3	0.7	7.0	4.0	0.4	4.4	10.3	1.1	11.4
1932	4.4	0.5	4.9	3.5	0.4	3.9	7.9	0.9	8.8
1933	2.0	0.2	2.2	2.9	0.3	3.2	4.9	0.5	5.4
1934	1.6	0.2	1.8	2.8	0.3	3.1	4.4	0.5	4.9
1935	1.5	0.1	1.6	2.8	0.3	3.1	4.3	0.4	4.7
1936	1.8	0.2	2.0	2.8	0.3	3.1	4.6	0.5	5.1
1937	2.7	0.3	3.0	3.1	0.3	3.4	5.8	0.6	6.4
1938	3.2	0.4	3.6	3.2	0.3	3.5	6.4	0.7	7.1
1939	2.6	0.3	2.9	3.1	0.3	3.4	5.7	0.6	6.3
1940	2.1	0.2	2.3	2.9	0.3	3.2	5.0	0.5	5.5
1941	1.9	0.2	2.1	2.9	0.3	3.2	4.8	0.5	5.3
1942	1.3	0.1	1.4	2.7	0.3	3.0	4.0	0.4	4.4
1943	1.0	0.1	1.1	2.6	0.3	2.9	3.6	0.4	4.0
1944	1.6	0.2	1.8	2.8	0.3	3.1	4.4	0.5	4.9
1945	2.2	0.2	2.4	2.9	0.3	3.2	5.1	0.5	5.6
1946	5.6	0.6	6.2	3.8	0.4	4.2	9.4	1.0	10.4
1947	9.8	1.1	10.9	4.8	0.7	5.5	14.6	1.8	16.4
1948	21.0	2.6	23.6	8.0	0.8	8.8	29.0	3.4	32.4
1949	30.2	3.2	33.4	7.8	0.8	8.6	38.0	4.0	42.0
1950	27.9	4.6	32.5	7.5	1.6	9.1	35.4	6.2	41.6
1951	39.1	4.8	43.9	13.2	2.3	15.5	52.3	7.1	59.4

**TABLE 77. New Investment in Durable Physical Assets and Repair and Maintenance, Universities, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926	3.1	0.4	3.5	1.3	0.3	1.6	4.4	0.7	5.1
1927	3.0	0.4	3.4	1.4	0.3	1.7	4.4	0.7	5.1
1928	1.8	0.3	2.1	1.4	0.3	1.7	3.2	0.6	3.8
1929	3.9	0.6	4.5	1.5	0.3	1.8	5.4	0.9	6.3
1930	8.2	1.2	9.4	1.5	0.3	1.8	9.7	1.5	11.2
1931	7.4	1.1	8.5	1.7	0.3	2.0	9.1	1.4	10.5
1932	1.8	0.3	2.1	1.8	0.4	2.2	3.6	0.7	4.3
1933	0.9	0.1	1.0	1.8	0.4	2.2	2.7	0.5	3.2
1934	1.2	0.2	1.4	1.8	0.4	2.2	3.0	0.6	3.6
1935	0.9	0.1	1.0	1.8	0.4	2.2	2.7	0.5	3.2
1936	1.4	0.2	1.6	1.8	0.4	2.2	3.2	0.6	3.8
1937	2.6	0.4	3.0	1.8	0.4	2.2	4.4	0.8	5.2
1938	1.4	0.2	1.6	1.9	0.4	2.3	3.3	0.6	3.9
1939	4.2	0.6	4.8	1.9	0.4	2.3	6.1	1.0	7.1
1940	2.0	0.3	2.3	1.9	0.4	2.3	3.9	0.7	4.6
1941	2.8	0.4	3.2	2.0	0.4	2.4	4.8	0.8	5.6
1942	0.9	0.1	1.0	2.0	0.4	2.4	2.9	0.5	3.4
1943	1.8	0.3	2.1	2.0	0.4	2.4	3.8	0.7	4.5
1944	1.4	0.2	1.6	2.0	0.4	2.4	3.4	0.6	4.0
1945	6.1	0.9	7.0	2.0	0.4	2.4	8.1	1.3	9.4
1946	10.8	1.6	12.4	2.1	0.4	2.5	12.9	2.0	14.9
1947	11.9	1.6	13.5	2.3	0.3	2.6	14.2	1.9	16.1
1948	11.0	1.3	12.3	2.6	0.7	3.3	13.6	2.0	15.6
1949	9.8	2.1	11.9	2.1	0.2	2.3	11.9	2.3	14.2
1950	13.5	1.7	15.2	1.7	0.5	2.2	15.2	2.2	17.4
1951	19.3	2.7	22.0	1.6	0.2	1.8	20.9	2.9	23.8

TABLE 78. New Investment in Durable Physical Assets and Repair and Maintenance, Municipal Schools, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926.....	17.6	2.1	19.7	2.2	0.3	2.5	19.8	2.4	22.2
1927.....	22.7	2.7	25.4	2.6	0.4	3.0	25.3	3.1	28.4
1928.....	24.8	3.0	27.8	2.7	0.4	3.1	27.5	3.4	30.9
1929.....	26.4	3.2	29.6	2.9	0.4	3.3	29.3	3.6	32.9
1930.....	31.3	3.8	35.1	3.0	0.5	3.5	34.3	4.3	38.6
1931.....	21.5	2.6	24.1	3.4	0.5	3.9	24.9	3.1	28.0
1932.....	15.8	1.9	17.7	2.9	0.4	3.3	18.7	2.3	21.0
1933.....	6.7	0.8	7.5	2.2	0.3	2.5	8.9	1.1	10.0
1934.....	5.2	0.6	5.8	1.8	0.3	2.1	7.0	0.9	7.9
1935.....	6.0	0.7	6.7	1.9	0.3	2.2	7.9	1.0	8.9
1936.....	8.4	1.0	9.4	2.1	0.3	2.4	10.5	1.3	11.8
1937.....	7.4	0.9	8.3	2.3	0.3	2.6	9.7	1.2	10.9
1938.....	7.2	0.9	8.1	2.6	0.4	3.0	9.8	1.3	11.1
1939.....	11.2	1.3	12.5	2.7	0.4	3.1	13.9	1.7	15.6
1940.....	6.4	0.8	7.2	2.5	0.4	2.9	8.9	1.2	10.1
1941.....	5.0	0.6	5.6	2.8	0.4	3.2	7.8	1.0	8.8
1942.....	5.6	0.7	6.3	2.9	0.4	3.3	8.5	1.1	9.6
1943.....	6.9	0.8	7.7	3.3	0.5	3.8	10.2	1.3	11.5
1944.....	7.3	0.9	8.2	4.1	0.6	4.7	11.4	1.5	12.9
1945.....	12.9	1.4	14.3	4.5	0.7	5.2	17.4	2.1	19.5
1946.....	24.5	2.9	27.4	5.0	0.7	5.7	29.5	3.6	33.1
1947.....	27.6	3.7	31.3	5.0	0.8	5.8	32.6	4.5	37.1
1948.....	47.6	5.8	53.4	5.6	0.8	6.4	53.2	6.6	59.8
1949.....	66.2	7.0	73.2	9.2	1.8	11.0	75.4	8.8	84.2
1950.....	85.5	9.0	94.5	10.0	1.0	11.0	95.5	10.0	105.5
1951.....	83.0	10.0	93.0	10.9	1.1	12.0	93.9	11.1	105.0

TABLE 79. New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public Hospitals, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
1926.....	4.7	0.9	5.6	2.6	1.2	3.8	7.3	2.1	9.4
1927.....	5.1	1.1	6.2	2.8	1.3	4.1	7.9	2.4	10.3
1928.....	6.6	1.3	7.9	2.9	1.4	4.3	9.5	2.7	12.2
1929.....	10.2	1.8	12.0	2.8	1.3	4.1	13.0	3.1	16.1
1930.....	9.8	1.9	11.7	3.0	1.3	4.3	12.8	3.2	16.0
1931.....	10.3	2.0	12.3	3.0	1.4	4.4	13.3	3.4	16.7
1932.....	6.4	1.2	7.6	2.8	1.2	4.0	9.2	2.4	11.6
1933.....	3.3	0.6	3.9	2.4	1.1	3.5	5.7	1.7	7.4
1934.....	3.0	0.6	3.6	2.5	1.2	3.7	5.5	1.8	7.3
1935.....	3.8	0.8	4.6	2.5	1.2	3.7	6.3	2.0	8.3
1936.....	4.9	0.8	5.7	2.5	1.2	3.7	7.4	2.0	9.4
1937.....	6.7	1.2	7.9	2.5	1.2	3.7	9.2	2.4	11.6
1938.....	11.8	2.0	13.8	2.8	1.3	4.1	14.6	3.3	17.9
1939.....	8.3	1.5	9.8	2.8	1.3	4.1	11.1	2.8	13.9
1940.....	5.4	1.1	6.5	2.8	1.3	4.1	8.2	2.4	10.6
1941.....	5.1	1.0	6.1	3.0	1.3	4.3	8.1	2.3	10.4
1942.....	6.1	1.1	7.2	3.1	1.3	4.4	9.2	2.4	11.6
1943.....	7.0	1.4	8.4	3.5	1.4	4.9	10.5	2.8	13.3
1944.....	14.2	2.3	16.5	4.1	1.8	5.9	18.3	4.1	22.4
1945.....	18.9	3.4	22.3	4.7	2.0	6.7	23.6	5.4	29.0
1946.....	23.8	4.5	28.3	5.3	2.2	7.5	29.1	6.7	35.8
1947.....	27.0	6.1	33.1	5.3	3.0	8.3	32.3	9.1	41.4
1948.....	44.0	11.6	55.6	11.3	5.6	16.9	55.3	17.2	72.5
1949.....	61.3	10.1	71.4	8.9	4.1	12.6	69.8	14.2	84.0
1950.....	58.7	11.0	69.7	9.0	3.5	12.5	67.7	14.5	82.2
1951.....	99.7	14.1	113.8	8.6	3.8	12.4	108.3	17.9	126.2



**TABLE 80. New Investment in Durable Physical Assets and Repair and Maintenance, Private Hospitals, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	2.2	0.5	2.7	1.7	0.9	2.6	3.9	1.4	5.3
1927	2.9	0.7	3.6	1.8	0.9	2.7	4.7	1.6	6.3
1928	3.5	0.8	4.3	1.9	1.0	2.9	5.4	1.8	7.2
1929	3.5	0.8	4.3	1.9	1.0	2.9	5.4	1.8	7.2
1930	4.5	1.1	5.6	2.0	1.0	3.0	6.5	2.1	8.6
1931	5.1	1.2	6.3	2.0	1.0	3.0	7.1	2.2	9.3
1932	3.1	0.7	3.8	1.8	0.9	2.7	4.9	1.6	6.5
1933	1.1	0.3	1.4	1.6	0.8	2.4	2.7	1.1	3.8
1934	1.3	0.3	1.6	1.7	0.9	2.6	3.0	1.2	4.2
1935	1.5	0.5	2.0	1.7	0.9	2.6	3.2	1.4	4.6
1936	2.8	0.5	3.3	1.7	0.9	2.6	4.5	1.4	5.9
1937	2.0	0.5	2.5	1.7	0.9	2.6	3.7	1.4	5.1
1938	3.9	0.9	4.8	1.9	1.0	2.9	5.8	1.9	7.7
1939	3.4	0.8	4.2	1.9	1.0	2.9	5.3	1.8	7.1
1940	3.3	0.8	4.1	1.8	0.9	2.7	5.1	1.7	6.8
1941	2.8	0.7	3.5	1.8	0.9	2.7	4.6	1.6	6.2
1942	3.0	0.7	3.7	1.8	0.9	2.7	4.8	1.6	6.4
1943	3.2	0.8	4.0	1.8	0.9	2.7	5.0	1.7	6.7
1944	6.0	1.4	7.4	2.1	1.1	3.2	8.1	2.5	10.6
1945	9.0	2.2	11.2	2.4	1.3	3.7	11.4	3.5	14.9
1946	11.8	2.8	14.6	2.7	1.4	4.1	14.5	4.2	18.7
1947	14.3	4.1	18.4	3.0	1.7	4.7	17.3	5.8	23.1
1948	30.8	9.0	39.8	9.3	4.2	13.5	40.1	13.2	53.3
1949	35.3	6.3	41.6	4.9	2.6	7.5	40.2	8.9	49.1
1950	30.1	6.6	36.7	5.1	2.2	7.3	35.2	8.8	44.0
1951	62.1	8.9	71.0	4.8	2.1	6.9	66.9	11.0	77.9

**TABLE 81. New Investment in Durable Physical Assets and Repair and Maintenance, Public Hospitals, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	2.5	0.4	2.9	0.9	0.3	1.2	3.4	0.7	4.1
1927	2.2	0.4	2.6	1.0	0.4	1.4	3.2	0.8	4.0
1928	3.1	0.5	3.6	1.0	0.4	1.4	4.1	0.9	5.0
1929	6.7	1.0	7.7	0.9	0.3	1.2	7.6	1.3	8.9
1930	5.3	0.8	6.1	1.0	0.3	1.3	6.3	1.1	7.4
1931	5.2	0.8	6.0	1.0	0.4	1.4	6.2	1.2	7.4
1932	3.3	0.5	3.8	1.0	0.3	1.3	4.3	0.8	5.1
1933	2.2	0.3	2.5	0.8	0.3	1.1	3.0	0.6	3.6
1934	1.7	0.3	2.0	0.8	0.3	1.1	2.5	0.6	3.1
1935	2.3	0.3	2.6	0.8	0.3	1.1	3.1	0.6	3.7
1936	2.1	0.3	2.4	0.8	0.3	1.1	2.9	0.6	3.5
1937	4.7	0.7	5.4	0.8	0.3	1.1	5.5	1.0	6.5
1938	7.9	1.1	9.0	0.9	0.3	1.2	8.8	1.4	10.2
1939	4.9	0.7	5.6	0.9	0.3	1.2	5.8	1.0	6.8
1940	2.1	0.3	2.4	1.0	0.4	1.4	3.1	0.7	3.8
1941	2.3	0.3	2.6	1.2	0.4	1.6	3.5	0.7	4.2
1942	3.1	0.4	3.5	1.3	0.4	1.7	4.4	0.8	5.2
1943	3.0	0.6	4.4	1.7	0.5	2.2	5.5	1.1	6.6
1944	8.2	0.9	9.1	2.0	0.7	2.7	10.2	1.6	11.8
1945	9.9	1.2	11.1	2.3	0.7	3.0	12.2	1.9	14.1
1946	12.0	1.7	13.7	2.6	0.8	3.4	14.6	2.5	17.1
1947	12.7	2.0	14.7	2.3	1.3	3.6	15.0	3.3	18.3
1948	13.2	2.6	15.8	2.0	1.4	3.4	15.2	4.0	19.2
1949	26.0	3.8	29.8	3.6	1.5	5.1	29.6	5.3	34.9
1950	28.6	4.4	33.0	3.9	1.3	5.2	32.5	5.7	38.2
1951	37.6	5.2	42.8	3.8	1.7	5.5	41.4	6.9	48.3

TABLE 82. New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government Enterprises, Institutions, Housing and Departments, Canada, 1926-1951

(Millions of Dollars)

	New Investment				Repair and Maintenance				New Investment, Repair and Maintenance			
	Government-Owned Enterprises	Government-Operated Institutions and Housing <sup>1</sup>	Government Departments <sup>2</sup>	Sub-total	Government-Owned Enterprises	Government-Operated Institutions and Housing <sup>1</sup>	Government Departments <sup>2</sup>	Sub-total	Government-Owned Enterprises	Government-Operated Institutions and Housing <sup>1</sup>	Government Departments <sup>2</sup>	Total
1926	38.3	—	33.5	71.8	83.2	—	12.0	95.2	121.5	—	45.5	167.0
1927	58.7	—	45.5	104.2	86.7	—	16.0	102.7	145.4	—	61.5	206.9
1928	69.7	—	50.5	120.2	95.4	—	18.2	113.6	165.1	—	68.7	233.8
1929	107.1	—	58.5	165.6	95.3	—	21.4	116.7	202.4	—	79.9	282.3
1930	77.5	—	78.8	156.3	83.8	—	19.9	103.7	161.3	—	98.7	260.0
1931	50.5	—	59.7	110.2	73.9	—	19.9	93.8	124.4	—	79.6	204.0
1932	10.3	—	35.8	46.1	53.6	—	12.5	66.1	63.9	—	48.3	112.2
1933	8.9	—	26.3	35.2	51.5	—	9.6	61.1	60.4	—	35.9	96.3
1934	9.5	—	29.1	38.6	56.0	—	11.4	67.4	65.5	—	40.5	106.0
1935	12.1	—	34.8	46.9	55.5	—	13.8	69.3	67.6	—	48.6	116.2
1936	26.9	—	27.8	54.7	66.2	—	12.9	79.1	93.1	—	40.7	133.8
1937	40.5	—	31.2	71.7	70.2	—	14.2	84.4	110.7	—	45.4	156.1
1938	31.8	—	42.3	74.1	67.2	—	18.9	86.1	99.0	—	61.2	160.2
1939	29.2	—	44.7	73.9	70.1	—	16.6	86.7	99.3	—	61.3	160.6
1940	35.4	—	179.3	214.7	68.8	—	14.0	82.8	104.2	—	193.3	297.5
1941	29.4	11.0	370.3	410.7	78.6	0.2	7.9	86.7	108.0	11.2	378.2	497.4
1942	47.4	31.4	422.2	501.0	79.1	0.4	8.3	87.8	126.5	31.8	430.5	588.8
1943	122.9	31.9	398.0	552.8	88.5	0.6	9.7	98.8	211.4	32.5	407.7	651.6
1944	202.0	17.9	186.8	406.7	109.2	1.1	11.1	121.4	311.2	19.0	197.9	528.1
1945	85.7	19.8	104.6	210.1	111.2	1.5	13.7	126.4	196.9	21.3	118.3	336.5
1946	40.1	60.9	40.3	141.3	119.2	5.1	22.0	146.3	159.3	66.0	62.3	287.6
1947	63.3	41.4	51.1	155.8	133.1	3.1	40.2	176.4	196.4	44.5	91.3	332.2
1948	89.0	75.1	96.6	260.7	162.1	3.5	45.6	211.2	251.1	78.6	142.2	471.9
1949	84.0	79.3	137.9	301.2	160.0	2.9	32.7	195.6	244.0	82.2	170.6	496.8
1950	82.0	58.2	172.8	313.0	175.0	3.3	53.4	231.7	257.0	61.5	226.2	544.7
1951	133.0	45.9	290.1	469.0	182.0	3.2	70.8	256.0	315.0	49.1	360.9	725.0

1. Outlays on Federal Government institutions and housing were very small prior to 1941 and are included in government departments.

2. Includes outlays by the Government of United Kingdom for war production facilities in Canada. These facilities were purchased later by the Canadian Government. The value of these expenditures is estimated at \$28, \$84, \$61 and \$34 million in the years 1940, 1941, 1942 and 1943, respectively.

TABLE 83. New Investment in Durable Physical Assets and Repair and Maintenance, and Expenditures on Other Goods and Services, Federal Government, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment <sup>1</sup>	Repair and Maintenance <sup>1</sup>	New Investment, Repair and Maintenance <sup>1</sup>	Expenditures on Other Goods and Services	Federal Expenditures on All Goods and Services
1926	33.5	12.0	45.5	87.5	133.0
1927	45.5	16.0	61.5	83.5	145.0
1928	50.5	18.2	68.7	83.3	152.0
1929	58.5	21.4	79.9	93.1	173.0
1930	78.8	19.9	98.7	87.3	186.0
1931	59.7	19.9	79.6	79.4	159.0
1932	35.8	12.5	48.3	85.7	134.0
1933	26.3	9.6	35.9	94.1	130.0
1934	29.1	11.4	40.5	102.5	143.0
1935	34.8	13.8	48.6	123.4	172.0
1936	27.8	12.9	40.7	124.3	165.0
1937	31.2	14.2	45.4	117.6	163.0
1938	42.3	18.9	61.2	123.8	185.0
1939	44.7	16.6	61.3	160.7	222.0
1940	179.3	14.0	193.3	496.7	690.0
1941	381.4	8.1	389.5	814.5	1,204.0
1942	453.5	8.6	462.1	2,787.9	3,250.0
1943	429.9	10.4	440.3	3,295.7	3,736.0
1944	204.7	12.2	216.9	4,271.1	4,488.0
1945	124.5	15.2	139.7	2,970.3	3,110.0
1946	100.9	27.1	128.0	962.0	1,090.0
1947	92.5	43.4	135.9	503.1	639.0
1948	135.7	49.0	184.7	494.3	679.0
1949	160.7	33.6	194.3	685.7	880.0
1950	188.0	54.5	242.5	728.3	971.0
1951	301.0	72.0	373.0	—	—

1. For the years 1941 to 1951 the figures on new investment, repair and maintenance differ from those shown for government departments in Table 85 because of the inclusion above of government expenditures for housing and hospitals to assure comparability with the data on expenditures on all goods and services.

2. Not available.

**TABLE 84. New Investment in Durable Physical Assets and Repair and Maintenance, and Total Government Expenditures, Federal Government, Canada, Selected Years, 1926-1950**

(Millions of Dollars)

Year	New Investment, Repair and Maintenance <sup>1</sup>	All Other Government Expenditures	Total Public Expenditures Through Capital and Current Accounts	Adjustment for Inter-Govern- mental Transfer Payments	Total Public Expenditures on Capital and Current Account <sup>2</sup>
1926	45.5	257.9	303.4	12.5	290.9
1929	79.9	257.2	337.1	14.1	323.0
1930	98.7	276.0	374.7	19.0	355.7
1933	35.9	371.9	407.8	18.2	389.6
1937	45.4	423.0	468.4	23.8	444.6
1941	389.5	1,367.6	1,757.1	38.4	1,718.7
1944	216.9	4,737.7	4,954.6	42.2	4,912.4
1946	128.0	2,258.1	2,386.1	46.2	2,339.9
1948	184.7	1,721.9	1,906.6	104.9	1,801.7
1950	242.5	2,397.9	2,640.4	128.3	2,512.1

1. For the years 1941 to 1950 the figures on new investment, repair and maintenance differ from those shown for government departments in Table 85 because of the inclusion above of government expenditures for housing and hospitals to assure comparability with the data on expenditures on all goods and services.  
2. Per Table 10 of *Comparative Statistics of Public Finance*, August 1945.

**TABLE 85. New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government Departments, by Type of Expenditure, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment				Repair and Maintenance				New Investment, Repair and Maintenance			
	Construc- tion	Machinery and Equipment	Resources Development and Conservation	Sub- total	Construc- tion	Machinery and Equipment	Resources Development and Conservation	Sub- total	Construc- tion	Machinery and Equipment	Resources Development and Conservation	Total
1926	28.9	3.8	0.8	33.5	5.7	1.3	5.0	12.0	34.6	5.1	5.8	45.5
1927	39.2	4.9	1.4	45.5	8.6	1.7	5.7	16.0	47.8	6.6	7.1	61.5
1928	43.1	5.5	1.9	50.5	10.8	2.0	5.4	18.2	53.9	7.5	7.3	68.7
1929	49.4	6.5	2.6	58.5	14.1	2.3	5.0	21.4	63.5	8.8	7.6	79.9
1930	68.2	8.3	2.3	78.8	12.5	3.0	4.4	19.9	80.7	11.3	6.7	98.7
1931	51.4	5.9	2.4	59.7	12.7	2.8	4.4	19.9	64.1	8.7	6.8	79.6
1932	30.6	3.3	1.9	35.8	8.1	1.7	2.7	12.5	38.7	5.0	4.6	48.3
1933	22.4	2.2	1.7	26.3	6.3	1.2	2.1	9.6	28.7	3.4	3.8	35.9
1934	23.6	3.6	1.9	29.1	7.6	1.6	2.2	11.4	31.2	5.2	4.1	40.5
1935	26.7	5.8	2.3	34.8	9.2	2.3	2.3	13.8	35.9	8.1	4.6	48.6
1936	19.1	6.6	2.1	27.8	8.7	2.4	1.8	12.9	27.8	9.0	3.9	40.7
1937	20.2	8.6	2.4	31.2	9.7	2.9	1.6	14.2	29.9	11.5	4.0	45.4
1938	28.8	10.6	2.9	42.3	12.5	3.9	2.5	18.9	41.3	14.5	5.4	61.2
1939	30.1	11.6	3.0	44.7	10.6	3.5	2.5	16.6	40.7	15.1	5.5	61.3
1940	120.6	55.9	2.8	179.3	8.8	3.0	2.2	14.0	129.4	58.9	5.0	193.3
1941	232.3	135.5	2.5	370.3	4.6	1.7	1.6	7.9	236.9	137.2	4.1	378.2
1942	288.7	130.3	3.2	422.2	4.5	1.6	2.2	8.3	293.2	131.9	5.4	430.5
1943	258.3	136.4	3.3	398.0	5.5	1.9	2.3	9.7	263.8	138.3	5.6	407.7
1944	126.7	56.7	3.4	186.8	6.4	2.1	2.6	11.1	133.1	58.8	6.0	197.9
1945	58.4	41.8	4.4	104.6	7.8	3.0	2.9	13.7	66.2	44.8	7.3	118.3
1946	22.0	12.2	6.1	40.3	7.0	10.9	4.1	22.0	29.0	23.1	10.2	62.3
1947	34.2	11.3	5.6	51.1	19.3	15.8	5.1	40.2	53.5	27.1	10.7	91.3
1948	69.5	19.3	7.8	96.6	22.6	16.9	6.1	45.6	92.1	36.2	13.9	142.2
1949	111.6	16.0	10.3	137.9	23.0	2.0	7.7	32.7	134.6	18.0	18.0	170.6 <sup>1</sup>
1950	140.3	18.0	14.5	172.8	29.2	12.7	11.5	53.4	169.5	30.7	26.0	226.2 <sup>1</sup>
1951	251.9	21.2	17.0	290.1	44.2	13.6	13.0	70.8	296.1	34.8	30.0	360.9 <sup>1</sup>

1. Includes Newfoundland.

**TABLE 86. New Investment in Durable Physical Assets, Federal Government Departments, by Type of Project, Canada, Selected Years, 1926-1948**

(Millions of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplica- tions	New Investment <sup>1</sup>
	Public Construction			Planning and Administra- tive Expenses	Sub- total					
	Engineering	Building	Total							
1926	25.1	1.7	26.8	2.2	29.0	1.0	3.8	33.8	0.3	33.5
1929	39.0	6.9	45.9	3.7	49.6	3.2	6.5	59.3	0.8	59.5
1930	49.3	13.9	63.2	5.0	68.2	3.2	8.3	79.7	0.9	78.8
1933	16.9	4.2	21.1	1.7	22.8	2.4	2.2	27.4	1.1	26.3
1937	13.1	5.9	19.0	1.5	20.5	4.0	8.6	33.1	1.9	31.2
1941	43.7	173.4	217.1	15.4	232.5	4.8	135.5	372.8	2.5	370.3
1944	24.3	92.6	116.9	9.9	126.8	5.2	56.7	188.7	1.9	186.8
1946	14.6	6.5	21.1	1.6	22.7	8.1	12.2	43.0	2.7	40.3
1948	41.8	23.4	65.2	5.2	70.4	17.7	19.3	107.4	10.8	96.6

1. Equals total less duplications.



TABLE 87. New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government Departments, by Type of Project, Canada, Selected Years, 1926-1948

(Millions of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
1926 .....	28.0	4.4	32.4	2.6	35.0	6.6	5.1	46.7	1.2	45.5
1929 .....	48.7	10.5	59.2	4.7	63.9	9.0	8.8	81.7	1.8	79.9
1930 .....	57.0	18.1	75.1	6.0	81.1	8.9	11.3	101.3	2.6	98.7
1933 .....	20.7	6.6	27.3	2.2	29.5	4.9	3.4	37.8	1.9	35.9
1937 .....	17.5	10.6	28.1	2.2	30.3	7.2	11.5	49.0	3.6	45.4
1941 .....	46.5	175.0	221.5	15.8	237.3	7.4	137.2	381.9	3.7	378.2
1944 .....	27.8	95.3	123.1	10.4	133.5	8.1	58.8	200.4	2.5	197.9
1946 .....	19.1	9.0	28.1	2.2	30.3	13.0	23.1	66.4	4.1	62.3
1948 .....	51.6	35.1	86.7	6.9	93.6	25.3	36.2	155.1	12.9	142.2

1. Equals total less duplications.

TABLE 88. New Construction and Repair and Maintenance, Federal Government Departments, by Type, Canada, 1926-1951

(Millions of Dollars)

Year	New Construction			Repair and Maintenance			New Construction, Repair and Maintenance		
	Building	Engineering	Sub-total	Building	Engineering	Sub-total	Building	Engineering	Total
1926 .....	1.8	27.1	28.9	3.0	2.7	5.7	4.8	29.8	34.6
1927 .....	3.5	35.7	39.2	3.8	4.8	8.6	7.3	40.5	47.8
1928 .....	5.1	38.0	43.1	3.9	6.9	10.8	9.0	44.9	53.9
1929 .....	7.4	42.0	49.4	3.9	10.2	14.1	11.3	52.2	63.5
1930 .....	15.0	53.2	68.2	4.6	7.9	12.5	19.6	61.1	80.7
1931 .....	11.1	40.3	51.4	4.8	7.9	12.7	15.9	48.2	64.1
1932 .....	6.4	24.2	30.6	3.1	5.0	8.1	9.5	29.2	38.7
1933 .....	4.6	17.8	22.4	2.5	3.8	6.3	7.1	21.6	28.7
1934 .....	5.2	18.4	23.6	3.3	4.3	7.6	8.5	22.7	31.2
1935 .....	6.3	20.4	26.7	4.2	5.0	9.2	10.5	25.4	35.9
1936 .....	5.8	13.3	19.1	4.3	4.4	8.7	10.1	17.7	27.8
1937 .....	6.4	13.8	20.2	5.1	4.6	9.7	11.5	18.4	29.9
1938 .....	8.7	20.1	28.8	6.2	6.3	12.5	14.9	26.4	41.3
1939 .....	13.0	17.1	30.1	5.1	5.5	10.6	18.1	22.6	40.7
1940 .....	95.5	25.1	120.6	3.9	4.9	8.8	99.4	30.0	129.4
1941 .....	185.5	46.8	232.3	1.8	2.8	4.6	187.3	49.6	236.9
1942 .....	241.4	47.3	288.7	2.7	1.8	4.5	244.1	49.1	293.2
1943 .....	209.5	48.8	258.3	3.6	1.9	5.5	213.1	50.7	263.8
1944 .....	100.4	26.3	126.7	2.9	3.5	6.4	103.3	29.8	133.1
1945 .....	46.7	11.7	58.4	4.7	3.1	7.8	51.4	14.8	66.2
1946 .....	6.9	15.1	22.0	2.7	4.3	7.0	9.6	19.4	29.0
1947 .....	13.7	20.5	34.2	10.3	9.0	19.3	24.0	29.5	53.5
1948 .....	25.3	44.2	69.5	12.7	9.9	22.6	38.0	54.1	92.1
1949 .....	47.6	64.0	111.6	13.0	10.0	23.0	60.6	74.0	134.6
1950 .....	65.3	75.0	140.3	16.0	13.2	29.2	81.3	88.2	169.5
1951 .....	155.0	96.9	251.9	25.0	19.2	44.2	180.0	116.1	296.1

TABLE 89. New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government Departments, by Province,<sup>1</sup> Canada, Selected Years, 1926-1948

(Millions of Dollars)

Year	Type	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta <sup>3</sup>	British Columbia <sup>4</sup>	All Provinces
1926	New Investment	— <sup>2</sup>	1.0	0.9	1.7	24.8	0.2	0.3	0.7	3.9	33.5
	Repair and Maintenance	— <sup>2</sup>	0.6	0.6	1.2	4.4	0.6	1.4	1.6	1.6	12.0
	Total	— <sup>2</sup>	1.6	1.5	2.9	29.2	0.8	1.7	2.3	5.5	45.5
1929	New Investment	0.2	2.2	1.5	5.8	40.7	1.3	2.3	0.7	3.8	58.5
	Repair and Maintenance	0.2	1.1	0.5	6.2	6.5	1.0	1.3	2.5	2.1	21.4
	Total	0.4	3.3	2.0	12.0	47.2	2.3	3.6	3.2	5.9	79.9
1930	New Investment	0.3	4.6	3.8	8.7	36.5	7.7	4.8	4.1	8.3	78.8
	Repair and Maintenance	0.3	1.1	0.6	7.3	6.0	0.6	0.7	1.2	2.1	19.9
	Total	0.6	5.7	4.4	16.0	42.5	8.3	5.5	5.3	10.4	98.7
1933	New Investment	— <sup>2</sup>	1.6	1.6	8.8	9.1	2.5	0.5	1.2	1.0	26.3
	Repair and Maintenance	0.1	1.0	0.3	2.7	3.3	0.2	0.3	0.4	1.3	9.6
	Total	0.1	2.6	1.9	11.5	12.4	2.7	0.8	1.6	2.3	35.9
1937	New Investment	0.2	2.3	1.0	10.1	8.4	0.5	2.4	2.1	4.2	31.2
	Repair and Maintenance	0.4	2.3	0.7	3.2	4.0	0.5	0.4	0.9	1.8	14.2
	Total	0.6	4.6	1.7	13.3	12.4	1.0	2.8	3.0	6.0	45.4
1946	New Investment	0.7	3.5	1.7	11.0	10.8	1.5	2.9	3.9	4.3	40.3
	Repair and Maintenance	0.2	4.7	0.8	6.8	5.1	0.4	0.2	1.2	2.6	22.0
	Total	0.9	8.2	2.5	17.8	15.9	1.9	3.1	5.1	6.9	62.3
1948	New Investment	1.7	8.6	6.1	16.2	25.4	10.0	2.4	13.7	12.5	96.6
	Repair and Maintenance	0.8	5.7	2.8	5.2	10.9	1.6	1.6	5.1	11.9	45.6
	Total	2.5	14.3	8.9	21.4	36.3	11.6	4.0	18.8	24.4	142.2

1. Excludes Newfoundland.
2. Less than \$50,000.
3. Includes Northwest Territories.
4. Includes the Yukon.

TABLE 90. New Investment in Durable Physical Assets and Repair and Maintenance, Provincial Government Enterprises, Institutions and Departments, Canada, 1926-1951

(Millions of Dollars)

Year	New Investment				Repair and Maintenance				New Investment, Repair and Maintenance			
	Government-Owned Enterprises	Government-Operated Institutions	Government Departments	Sub-total	Government-Owned Enterprises	Government-Operated Institutions	Government Departments	Sub-total	Government-Owned Enterprises	Government-Operated Institutions	Government Departments	Total
1926	10.6	2.0	28.1	40.7	2.7	1.0	21.0	24.7	13.3	3.0	49.1	65.4
1927	13.2	1.6	36.0	50.8	3.0	1.0	24.2	28.2	16.2	2.6	60.2	79.0
1928	14.4	2.5	46.9	63.8	3.1	1.0	28.1	32.2	17.5	3.5	75.0	96.0
1929	24.0	6.4	56.5	86.9	3.4	0.9	30.9	35.2	27.4	7.3	87.4	122.1
1930	30.3	4.8	77.1	112.2	3.4	0.9	35.1	39.4	33.7	5.7	112.2	151.6
1931	27.5	4.9	67.9	100.3	3.4	0.9	37.8	42.1	30.9	5.8	105.7	142.4
1932	11.6	2.8	44.6	59.0	3.3	0.9	29.2	33.4	14.9	3.7	73.8	92.4
1933	4.4	1.6	27.8	33.8	3.0	0.9	19.3	23.2	7.4	2.5	47.1	57.0
1934	4.1	1.3	52.5	57.9	3.2	0.9	33.6	37.7	7.3	2.2	86.1	95.6
1935	11.5	1.8	57.9	71.2	2.8	0.9	31.3	35.0	14.3	2.7	89.2	106.2
1936	8.9	1.5	58.7	69.1	3.0	0.8	26.4	30.2	11.9	2.3	85.1	99.3
1937	13.5	4.5	112.0	130.0	3.2	0.9	34.4	38.4	16.7	5.3	146.4	168.4
1938	16.2	8.0	81.6	105.8	3.2	0.9	38.6	42.7	19.4	8.9	120.2	148.5
1939	14.5	4.4	72.6	91.5	6.1	1.0	38.8	45.9	20.6	5.4	111.4	137.4
1940	16.1	1.9	49.3	67.3	6.2	1.1	29.4	36.7	22.3	3.0	78.7	104.0
1941	21.1	1.9	54.4	77.4	6.6	1.0	34.2	41.8	27.7	2.9	88.6	119.2
1942	17.3	1.4	39.2	57.9	6.9	1.0	29.3	37.2	24.2	2.4	68.5	95.1
1943	10.5	1.2	36.5	48.2	7.1	1.2	29.9	38.2	17.6	2.4	66.4	86.4
1944	9.9	2.0	29.1	41.0	9.4	1.2	40.7	51.3	19.3	3.2	69.8	92.3
1945	20.1	2.0	53.4	75.5	9.9	1.3	49.0	60.2	30.0	3.3	102.4	135.7
1946	34.2	2.5	100.7	137.4	12.0	1.3	63.1	76.4	46.2	3.8	163.8	213.8
1947	75.6	4.1	153.8	233.5	14.5	1.7	66.0	82.2	90.1	5.8	219.8	315.7
1948	126.6	5.7	198.3	330.6	16.5	1.9	73.6	92.0	143.1	7.6	271.9	422.6
1949	212.0	15.6	169.8	397.4	20.0	2.7	77.4	100.1	232.0	18.3	247.2	497.5
1950	203.0	18.5	188.2	409.7	19.0	2.8	87.4	109.2	222.0	21.3	275.6	518.9
1951	209.0	18.5	175.1	402.6	20.0	3.0	91.6	114.6	229.0	21.5	266.7	517.2

1. Includes provincial hospitals only. Provincial schools are included in government departments.

**TABLE 91. New Investment in Durable Physical Assets and Repair and Maintenance, and Expenditures on Other Goods and Services, All Provincial Governments, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment	Repair and Maintenance	New Investment, Repair and Maintenance	Expenditures on Other Goods and Services	Provincial Expenditures on All Goods and Services
1926 .....	28.1	21.0	49.1	54.9	104.0
1927 .....	36.0	24.2	60.2	55.8	116.0
1928 .....	46.9	28.1	75.0	60.0	135.0
1929 .....	56.5	30.9	87.4	69.6	157.0
1930 .....	77.1	35.1	112.2	70.8	183.0
1931 .....	67.9	37.8	105.7	73.3	179.0
1932 .....	44.6	29.2	73.8	79.2	153.0
1933 .....	27.8	19.3	47.1	78.9	126.0
1934 .....	52.5	33.6	86.1	71.9	158.0
1935 .....	57.9	31.3	89.2	76.8	166.0
1936 .....	58.7	26.4	85.1	81.9	167.0
1937 .....	112.0	34.4	146.4	83.6	230.0
1938 .....	81.6	38.6	120.2	132.8	253.0
1939 .....	72.6	38.8	111.4	111.6	223.0
1940 .....	49.3	29.4	78.7	111.3	190.0
1941 .....	54.4	34.2	88.6	111.4	200.0
1942 .....	39.2	29.3	68.5	117.5	186.0
1943 .....	36.5	29.9	66.4	125.6	192.0
1944 .....	29.1	40.7	69.8	136.2	206.0
1945 .....	53.4	49.0	102.4	142.6	245.0
1946 .....	100.7	63.1	163.8	158.2	322.0
1947 .....	153.8	66.0	219.8	202.2	422.0
1948 .....	198.3	73.6	271.9	229.1	501.0
1949 .....	169.8	77.4	247.2	295.8	543.0
1950 .....	188.2	87.4	275.6	311.4	587.0
1951 .....	175.1	91.6	266.7	— <sup>1</sup>	— <sup>1</sup>

1. Not available.

**TABLE 92. New Investment in Durable Physical Assets and Repair and Maintenance, and Total Government Expenditures, All Provincial Governments, Canada, Selected Years, 1926-1950**

(Millions of Dollars)

Year	New Investment, Repair and Maintenance	All Other Government Expenditures	Total Public Expenditures Through Capital and Current Accounts	Adjustment for Inter-Governmental Transfer Payments	Total Public Expenditures on Capital and Current Account <sup>1</sup>
1926 .....	49.1	108.9	158.0	1.4	156.6
1929 .....	87.4	141.5	228.9	2.6	226.3
1930 .....	112.2	157.4	269.6	9.2	260.4
1933 .....	47.1	193.0	240.1	21.2	218.9
1937 .....	146.4	260.5	406.9	47.2	359.7
1941 .....	88.6	266.6	355.2	43.9	311.3
1944 .....	69.8	323.5	393.3	54.5	338.8
1946 .....	163.8	378.4	542.2	65.5	476.7
1948 .....	271.9	593.4	865.3	90.2	775.1
1950 .....	275.6	819.4	1,095.0	158.1	936.9

1. Per Table 10 of Comparative Statistics of Public Finance.



**TABLE 93. New Investment in Durable Physical Assets and Repair and Maintenance, All Provincial Government Departments, by Type of Expenditure, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment				Repair and Maintenance				New Investment, Repair and Maintenance			
	Construction	Machinery and Equipment	Resources Development and Conservation	Sub-total	Construction	Machinery and Equipment	Resources Development and Conservation	Sub-total	Construction	Machinery and Equipment	Resources Development and Conservation	Total
1926	24.9	1.8	1.4	28.1	15.8	0.7	4.5	21.0	40.7	2.5	5.9	49.1
1927	32.1	2.3	1.6	36.0	18.1	1.1	5.0	24.2	50.2	3.4	6.6	60.2
1928	42.0	3.1	1.8	46.9	21.2	1.4	5.5	28.1	63.2	4.5	7.3	75.0
1929	50.5	4.0	2.0	56.5	23.0	1.6	6.3	30.9	73.5	5.6	8.3	87.4
1930	67.8	5.9	3.4	77.1	25.1	2.0	8.0	35.1	92.9	7.9	11.4	112.2
1931	59.5	5.2	3.2	67.9	27.6	2.2	8.0	37.8	87.1	7.4	11.2	105.7
1932	38.8	3.3	2.5	44.6	21.7	1.5	6.0	29.2	60.5	4.8	8.5	73.8
1933	24.0	2.0	1.8	27.8	13.3	0.8	5.2	19.3	37.3	2.8	7.0	47.1
1934	46.8	3.7	2.0	52.5	26.3	1.3	6.0	33.6	73.1	5.0	8.0	86.1
1935	51.6	4.0	2.3	57.9	24.2	1.3	5.8	31.3	75.8	5.3	8.1	89.2
1936	52.0	4.1	2.6	58.7	19.7	1.1	5.6	26.4	71.7	5.2	8.2	85.1
1937	102.9	6.2	2.9	112.0	26.6	1.4	6.4	34.4	129.5	7.6	9.3	146.4
1938	73.3	5.6	2.7	81.6	30.1	2.0	6.5	38.6	103.4	7.6	9.2	120.2
1939	65.1	4.9	2.6	72.6	30.0	2.3	6.5	38.8	95.1	7.2	9.1	111.4
1940	43.4	3.4	2.5	49.3	21.0	2.1	6.3	29.4	64.4	5.5	8.8	78.7
1941	48.2	3.8	2.4	54.4	24.6	2.6	7.0	34.2	72.8	6.4	9.4	88.6
1942	32.8	3.8	2.6	39.2	20.0	2.6	6.7	29.3	52.8	6.4	9.3	68.5
1943	29.9	3.8	2.8	36.5	21.0	2.5	6.4	29.9	50.9	6.3	9.2	66.4
1944	22.2	3.8	3.1	29.1	32.0	2.5	6.2	40.7	54.2	6.3	9.3	69.8
1945	45.4	5.0	3.0	53.4	40.0	3.0	6.0	49.0	85.4	8.0	9.0	102.4
1946	80.9	10.0	9.8	100.7	51.0	5.0	7.1	63.1	131.9	15.0	16.9	163.8
1947	134.0	13.8	6.0	153.8	54.0	5.0	7.0	66.0	188.0	18.8	13.0	219.8
1948	171.0	16.3	11.0	198.3	57.1	8.0	8.5	73.6	228.1	24.3	19.5	271.9
1949	141.1	16.4	12.3	169.8	61.4	7.1	8.9	77.4	202.5	23.5	21.2	247.2 <sup>1</sup>
1950	162.1	13.4	12.7	188.2	68.4	9.9	9.1	87.4	230.5	23.3	21.8	275.6 <sup>1</sup>
1951	148.8	13.0	13.3	175.1	72.3	9.8	9.5	91.6	221.1	22.8	22.8	266.7 <sup>1</sup>

1. The Canadian total includes investment expenditures by Newfoundland of \$5.8 million in 1949, and \$8.7 million in both 1950 and 1951.

**TABLE 94. New Investment in Durable Physical Assets, All Provincial Government Departments, by Type of Project, Canada, Selected Years, 1926-1948**

(Millions of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
1926 .....	19.9	3.7	23.6	1.8	25.4	2.3	1.8	29.5	1.4	28.1
1929 .....	42.8	5.4	48.2	3.9	52.1	3.6	4.0	59.7	3.2	56.5
1930 .....	58.5	6.9	65.4	5.2	70.6	5.0	5.9	81.5	4.4	77.1
1933 .....	21.4	1.4	22.8	1.8	24.6	2.4	2.0	29.0	1.2	27.8
1937 .....	95.3	2.9	98.2	7.9	106.1	7.6	6.2	119.9	7.9	112.0
1941 .....	42.9	2.9	45.8	3.7	49.5	3.9	3.8	57.2	2.8	54.4
1944 .....	18.8	2.5	21.3	1.7	23.0	3.8	3.8	30.6	1.5	29.1
1946 .....	74.8	5.4	80.2	6.4	86.6	13.5	10.0	110.1	9.4	100.7
1948 .....	148.0	19.4	167.4	13.4	180.8	13.6	16.3	210.7	12.4	198.3

1. Equals total less duplications.

**TABLE 95. New Investment in Durable Physical Assets and Repair and Maintenance, All Provincial Government Departments, by Type of Project, Canada, Selected Years, 1926-1948**

(Millions of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
1926 .....	32.6	5.8	38.4	3.1	41.5	7.0	2.5	51.0	1.9	49.1
1929 .....	62.0	8.4	70.4	5.7	76.1	10.6	5.7	92.4	5.0	87.4
1930 .....	79.5	10.4	89.9	7.2	97.1	13.8	7.9	118.8	6.6	112.2
1933 .....	31.6	3.8	35.4	2.8	38.2	8.1	2.8	49.1	2.0	47.1
1937 .....	117.8	5.9	123.7	10.0	133.7	14.6	7.6	155.9	9.7	146.2
1941 .....	64.5	5.9	70.4	5.7	76.1	11.5	6.4	94.0	5.4	88.6
1944 .....	46.1	5.9	52.0	4.2	56.2	11.3	6.3	73.8	4.0	69.8
1946 .....	121.3	9.4	130.7	10.4	141.1	22.7	15.0	178.8	15.0	163.8
1948 .....	200.5	24.2	224.7	18.0	242.7	28.0	24.3	295.0	23.1	271.9

1. Equals total less duplications.

**TABLE 96. New Construction and Repair and Maintenance, All Provincial Government Departments, by Type, Canada, 1926-1951**

(Millions of Dollars)

Year	New Construction			Repair and Maintenance			New Construction, Repair and Maintenance		
	Building	Engineering	Sub-total	Building	Engineering	Sub-total	Building	Engineering	Total
1926 .....	3.9	21.0	24.9	2.3	13.5	15.8	6.2	34.5	40.7
1927 .....	4.6	27.5	32.1	2.6	15.5	18.1	7.2	43.0	50.2
1928 .....	5.3	36.7	42.0	2.9	18.3	21.2	8.2	55.0	63.2
1929 .....	5.7	44.8	50.5	3.1	19.9	23.0	8.8	64.7	73.5
1930 .....	7.2	60.6	67.8	3.5	21.6	25.1	10.7	82.2	92.9
1931 .....	5.4	54.1	59.5	4.3	23.3	27.6	9.7	77.4	87.1
1932 .....	2.9	35.9	38.8	3.8	17.9	21.7	6.7	53.8	60.5
1933 .....	1.4	22.6	24.0	2.5	10.8	13.3	3.9	33.4	37.3
1934 .....	2.4	44.4	46.8	4.5	21.8	26.3	6.9	66.2	73.1
1935 .....	2.3	49.3	51.6	3.7	20.5	24.2	6.0	69.8	75.8
1936 .....	1.9	50.1	52.0	2.6	17.1	19.7	4.5	67.2	71.7
1937 .....	3.0	99.9	102.9	3.1	23.5	26.6	6.1	123.4	129.5
1938 .....	2.8	70.5	73.3	3.6	26.5	30.1	6.4	97.0	103.4
1939 .....	3.1	62.0	65.1	3.6	26.4	30.0	6.7	88.4	95.1
1940 .....	2.4	41.0	43.4	2.5	18.5	21.0	4.9	59.5	64.4
1941 .....	3.1	45.1	48.2	3.0	21.6	24.6	6.1	68.7	72.8
1942 .....	2.9	29.9	32.8	2.5	17.5	20.0	5.4	47.4	52.8
1943 .....	3.3	26.6	29.9	2.7	18.3	21.0	6.0	44.9	50.9
1944 .....	2.7	19.5	22.2	3.7	28.3	32.0	6.4	47.8	54.2
1945 .....	4.5	40.9	45.4	4.3	35.7	40.0	8.8	76.6	85.4
1946 .....	5.8	75.1	80.9	4.3	46.7	51.0	10.1	121.8	131.9
1947 .....	12.0	122.0	134.0	5.6	48.4	54.0	17.6	170.4	188.0
1948 .....	21.0	150.0	171.0	5.2	51.9	57.1	26.2	201.9	228.1
1949 .....	11.3	129.8	141.1	4.9	56.5	61.4	16.2	186.3	202.5
1950 .....	14.6	147.5	162.1	6.2	62.2	68.4	20.8	209.7	230.5
1951 .....	13.4	135.4	148.8	6.5	65.8	72.3	19.9	201.2	221.1

TABLE 97. New Investment in Durable Physical Assets and Repair and Maintenance, All Provincial Government Departments, by Province, Canada, Selected Years, 1926-1951

(Millions of Dollars)

Year	Type	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	All Provinces <sup>1</sup>
1926	New Investment .....	—	0.1	0.7	2.0	3.8	12.3	0.9	1.9	3.0	3.5	28.2
	Repair and Maintenance .....	—	0.1	1.3	1.0	6.9	4.6	0.4	1.3	0.7	4.1	20.9
	Total .....	—	0.2	2.5	3.0	10.7	16.9	1.3	3.2	3.7	7.6	49.1
1929	New Investment .....	—	0.3	0.8	5.1	10.3	18.1	3.1	5.9	4.3	8.5	56.4
	Repair and Maintenance .....	—	0.2	2.1	2.3	8.4	6.6	1.5	2.7	2.0	5.3	31.1
	Total .....	—	0.5	2.9	7.4	18.7	24.7	4.6	8.6	6.3	13.8	87.5
1930	New Investment .....	—	0.3	3.2	7.5	11.2	22.9	3.9	10.6	7.0	10.7	77.3
	Repair and Maintenance .....	—	0.3	2.4	2.4	9.9	8.0	1.3	2.5	1.8	6.6	35.2
	Total .....	—	0.6	5.6	9.9	21.1	30.9	5.2	13.1	8.8	17.3	112.5
1933	New Investment .....	—	0.3	3.1	1.0	8.6	12.3	0.4	0.4	0.9	0.9	27.9
	Repair and Maintenance .....	—	0.2	2.0	0.9	6.3	4.0	0.9	1.0	1.4	2.6	19.3
	Total .....	—	0.5	5.1	1.9	14.9	16.3	1.3	1.4	2.3	3.5	47.2
1937	New Investment .....	—	0.6	10.9	11.2	37.0	36.0	2.8	2.1	2.5	8.7	111.8
	Repair and Maintenance .....	—	0.4	1.8	1.4	9.6	11.2	1.1	2.0	2.0	4.8	34.3
	Total .....	—	1.0	12.7	12.6	46.6	47.2	3.9	4.1	4.5	13.5	146.1
1941	New Investment .....	—	0.3	0.9	1.5	20.2	25.2	0.7	0.9	1.8	3.0	54.5
	Repair and Maintenance .....	—	0.3	2.7	1.6	10.0	8.9	1.5	1.6	1.6	6.0	34.2
	Total .....	—	0.6	3.6	3.1	30.2	34.1	2.2	2.5	3.4	9.0	88.7
1944	New Investment .....	—	0.3	0.8	2.0	16.5	1.9	0.7	2.5	2.3	2.4	29.4
	Repair and Maintenance .....	—	0.9	3.2	2.1	9.6	13.1	1.8	1.7	1.9	5.8	40.1
	Total .....	—	1.2	4.0	4.1	26.1	15.0	2.5	4.2	4.2	8.2	69.5
1946	New Investment .....	—	0.8	5.3	9.6	33.6	24.1	2.8	4.9	7.4	12.3	100.8
	Repair and Maintenance .....	—	0.8	4.5	4.2	15.4	22.4	2.9	5.1	3.1	4.7	63.1
	Total .....	—	1.6	9.8	13.8	49.0	46.5	5.7	10.0	10.5	17.0	163.9
1948	New Investment .....	—	2.1	14.4	7.9	70.6	39.6	10.1	9.5	18.0	26.2	198.4
	Repair and Maintenance .....	—	0.3	1.8	7.3	19.8	24.3	2.9	3.7	4.3	9.2	73.6
	Total .....	—	2.4	16.2	15.2	90.4	63.9	13.0	13.2	22.3	35.4	272.0
1949	New Investment .....	3.0	1.7	19.7	11.2	36.3	40.9	7.7	7.9	19.3	22.1	169.8
	Repair and Maintenance .....	2.8	0.3	0.9	4.5	15.4	31.3	2.6	3.8	3.0	12.8	77.4
	Total .....	5.8	2.0	20.6	15.7	51.7	72.2	10.3	11.7	22.3	34.9	247.2
1950	New Investment .....	6.7	1.2	16.2	11.8	37.3	52.2	5.0	11.4	20.0	26.4	198.2
	Repair and Maintenance .....	2.0	0.9	1.2	5.9	15.0	30.8	2.9	4.3	9.4	15.0	87.4
	Total .....	8.7	2.1	17.4	17.7	52.3	83.0	7.9	15.7	29.4	41.4	275.6
1951	New Investment .....	6.7	1.2	9.5	5.0	35.1	46.5	6.5	10.0	24.8	29.8	175.1
	Repair and Maintenance .....	2.0	0.9	1.2	6.2	14.9	34.2	2.9	4.9	9.3	15.1	91.6
	Total .....	8.7	2.1	10.7	11.2	50.0	80.7	9.4	14.9	34.1	44.9	266.7

1. For all years except 1949 to 1951 totals exclude Newfoundland.



**TABLE 98. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Newfoundland, Selected Years, 1941-1950**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
				Including Investment Expenditure for Functions Assumed by Federal Government in 1949						
1941 .....	1,222	390	1,612	129	1,741	304	351	2,396	152	2,244
1944 .....	2,928	999	3,927	314	4,241	533	1,507	6,281	311	5,970
1946 .....	3,177	1,093	4,270	342	4,612	778	992	6,382	488	5,894
1948 .....	4,121	858	4,979	398	5,377	967	768	7,112	511	6,601
				Excluding Investment Expenditure for Functions Assumed by Federal Government in 1949						
1941 .....	1,001	224	1,225	98	1,323	304	245	1,872	152	1,720
1944 .....	1,771	654	2,425	194	2,619	533	378	3,530	311	3,219
1946 .....	2,871	634	3,505	280	3,785	778	743	5,306	488	4,818
1948 .....	3,274	712	3,986	319	4,305	967	608	5,880	511	5,369
1949 .....	3,814	638	4,452	356	4,808	820	754	6,382	557	5,825
1950 .....	6,210	518	6,728	538	7,266	1,230	1,094	9,590	903	8,687

1. Equals total less duplications.

**TABLE 99. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Prince Edward Island, Selected Years, 1926-1948**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub- total					
	Engineering	Building	Total							
1926 .....	161	23	184	15	199	—	25	224	18	206
1929 .....	442	20	462	37	499	—	41	540	31	509
1930 .....	520	18	538	43	581	—	51	632	37	595
1933 .....	278	176	454	43	497	—	32	529	26	503
1937 .....	804	39	843	71	914	90	58	1,062	80	982
1941 .....	460	84	544	46	590	1	42	633	36	597
1944 .....	841	222	1,063	68	1,131	—	40	1,171	32	1,139
1946 .....	1,318	125	1,443	115	1,558	22	137	1,717	132	1,585
1948 .....	1,781	343	2,124	170	2,294	22	305	2,621	183	2,438

1. Equals total less duplications.

**TABLE 100. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Nova Scotia, Selected Years, 1926-1948**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub- total					
	Engineering	Building	Total							
1926 .....	1,896	161	2,057	165	2,222	122	309	2,653	151	2,502
1929 .....	2,302	81	2,383	192	2,575	205	295	3,075	178	2,897
1930 .....	4,486	336	4,822	386	5,208	247	486	5,941	312	5,629
1933 .....	4,320	186	4,506	360	4,866	183	221	5,270	131	5,139
1937 .....	11,300	243	11,543	924	12,467	188	434	13,089	356	12,733
1941 .....	3,039	16	3,055	244	3,299	132	565	3,996	402	3,594
1944 .....	3,010	425	3,435	275	3,710	129	546	4,385	401	3,984
1946 .....	8,148	313	8,461	677	9,138	598	1,004	10,740	891	9,849
1948 .....	13,086	921	14,007	1,121	15,128	935	1,534	17,597	1,421	16,176

1. Equals total less duplications.

**TABLE 101. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, New Brunswick, Selected Years, 1926-1948**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
1926 .....	2,477	142	2,619	210	2,829	157	94	3,080	49	3,031
1929 .....	6,235	272	6,507	534	7,041	247	570	7,858	442	7,416
1930 .....	8,145	604	8,749	702	9,451	298	891	10,640	772	9,868
1933 .....	1,336	68	1,404	122	1,526	268	80	1,874	59	1,815
1937 .....	11,181	44	11,225	901	12,126	369	428	12,923	340	12,583
1941 .....	2,265	119	2,384	191	2,575	338	452	3,365	248	3,117
1944 .....	3,150	123	3,273	262	3,535	331	429	4,295	223	4,072
1946 .....	11,157	521	11,678	933	12,611	1,016	1,599	15,226	1,450	13,776
1948 .....	11,485	833	12,318	985	13,303	1,725	1,313	16,341	1,144	15,197

1. Equals total less duplications.

**TABLE 102. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Quebec, Selected Years, 1926-1948**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Adminis- trative Expenses	Sub- total					
	Engineering	Building	Total							
1926 .....	6,767	1,158	7,925	656	8,581	2,343	569	11,493	808	10,685
1929 .....	12,298	2,065	14,363	1,149	15,512	3,355	1,240	20,107	1,381	18,726
1930 .....	12,948	2,275	15,223	1,218	16,441	4,438	2,084	22,963	1,816	21,147
1933 .....	10,062	861	10,923	874	11,797	3,338	771	15,906	1,022	14,884
1937 .....	37,167	1,988	39,155	3,132	42,287	4,781	2,700	49,768	3,126	46,642
1941 .....	20,963	3,264	24,227	1,938	26,165	4,176	1,891	32,232	2,005	30,227
1944 .....	18,014	1,951	19,965	1,597	21,562	4,177	1,879	27,618	1,474	26,144
1946 .....	36,561	3,062	39,623	3,170	42,793	7,078	3,596	53,467	4,464	49,003
1948 .....	68,838	6,387	75,225	6,018	81,243	10,585	10,054	101,882	11,499	90,383

1. Equals total less duplications.

**TABLE 103. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Ontario, Selected Years, 1926-1948**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
1926 .....	10,530	2,598	13,128	1,067	14,195	2,476	620	17,291	323	16,968
1929 .....	17,713	1,633	19,346	1,565	20,911	3,821	1,051	25,783	1,073	24,710
1930 .....	21,560	2,599	24,159	1,968	26,127	4,394	1,700	32,221	1,351	30,870
1933 .....	10,932	1,540	12,472	1,007	13,479	2,382	884	16,745	479	16,266
1937 .....	38,819	1,719	40,538	3,378	43,916	3,386	1,949	49,251	2,092	47,159
1941 .....	28,095	757	28,852	2,309	31,161	2,990	1,520	35,671	1,555	34,116
1944 .....	9,206	925	10,131	810	10,941	3,407	1,779	16,127	1,133	14,994
1946 .....	34,754	1,816	36,570	2,926	39,496	6,775	3,683	49,954	3,456	46,498
1948 .....	43,534	5,718	49,252	3,940	53,192	10,413	2,840	66,445	2,586	63,859

1. Equals total less duplications.

**TABLE 104. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Manitoba, Selected Years, 1926-1948**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
1926 .....	931	148	1,079	97	1,176	278	96	1,550	287	1,263
1929 .....	3,613	542	4,155	346	4,501	509	379	5,389	752	4,637
1930 .....	3,738	677	4,415	360	4,775	548	462	5,785	716	5,069
1933 .....	661	111	772	63	835	365	187	1,387	82	1,305
1937 .....	2,716	216	2,932	237	3,169	1,130	457	4,756	900	3,856
1941 .....	987	295	1,282	103	1,385	640	463	2,488	319	2,169
1944 .....	1,341	225	1,566	125	1,691	627	449	2,767	283	2,484
1946 .....	3,623	590	4,213	341	4,554	1,078	1,255	6,887	1,221	5,666
1948 .....	10,140	820	10,960	877	11,837	875	1,141	13,853	887	12,966

1. Equals total less duplications.

**TABLE 105. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Saskatchewan, Selected Years, 1926-1948**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
1926 .....	2,463	407	2,870	231	3,101	94	86	3,281	24	3,257
1929 .....	6,145	1,399	7,544	674	8,218	102	320	8,640	84	8,556
1930 .....	10,480	1,297	11,777	948	12,725	341	338	13,404	337	13,067
1933 .....	886	143	1,029	82	1,111	263	70	1,444	91	1,353
1937 .....	2,744	420	3,164	264	3,428	895	321	4,644	502	4,142
1941 .....	1,580	144	1,724	162	1,886	517	213	2,616	137	2,479
1944 .....	3,086	271	3,357	269	3,626	507	215	4,348	122	4,226
1946 .....	6,944	498	7,442	595	8,037	1,727	1,813	11,577	1,626	9,951
1948 .....	9,201	2,194	11,395	912	12,307	859	1,409	14,575	1,395	13,180

1. Equals total less duplications.

**TABLE 106. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Alberta, Selected Years, 1926-1948**

(Thousands of Dollars)

	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total					
	Engineering	Building	Total							
1926 .....	2,812	438	3,250	260	3,510	51	163	3,724	42	3,682
1929 .....	3,969	1,438	5,407	490	5,897	87	432	6,416	161	6,255
1930 .....	5,338	1,935	7,273	615	7,888	651	526	9,065	334	8,731
1933 .....	1,172	429	1,601	129	1,730	396	282	2,408	78	2,330
1937 .....	3,211	407	3,618	319	3,937	454	187	4,578	105	4,473
1941 .....	1,946	488	2,434	210	2,644	529	275	3,448	73	3,375
1944 .....	2,126	1,125	3,251	260	3,511	518	273	4,302	66	4,236
1946 .....	7,738	1,162	8,900	712	9,612	1,108	613	11,333	840	10,493
1948 .....	16,373	2,167	18,540	1,483	20,023	1,329	2,851	24,203	1,893	22,310

1. Equals total less duplications.



**TABLE 107. New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, British Columbia, Selected Years, 1926-1948**

(Thousands of Dollars)

Year	Public Works					Resources Development and Conservation	Machinery and Equipment	Total	Duplications	New Investment Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub- total					
	Engineering	Building	Total							
1926 .....	4,583	691	5,274	424	5,698	1,517	563	7,778	177	7,601
1929 .....	9,293	915	10,208	907	11,115	2,235	1,274	14,624	930	13,694
1930 .....	12,244	693	12,937	1,129	14,066	2,854	1,415	18,335	1,064	17,271
1933 .....	2,004	261	2,265	181	2,446	964	247	3,657	123	3,534
1937 .....	9,658	754	10,412	837	11,249	3,350	1,033	15,632	2,218	13,414
1941 .....	5,121	757	5,878	470	6,348	2,275	977	9,600	622	8,978
1944 .....	4,857	836	5,693	455	6,148	1,667	682	8,497	303	8,194
1946 .....	11,059	1,279	12,338	987	13,325	3,279	1,277	17,881	927	16,954
1948 .....	25,981	4,902	30,883	2,471	33,354	1,337	2,810	37,501	2,137	35,364

1. Equals total less duplications.

**TABLE 108. New Investment in Durable Physical Assets and Repair and Maintenance, Municipal Government Enterprises, Institutions and Departments, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment				Repair and Maintenance				New Investment, Repair and Maintenance			
	Government-Owned Enterprises	Government-Operated Institutions	Government Departments	Sub-total	Government-Owned Enterprises	Government-Operated Institutions	Government Departments	Sub-total	Government-Owned Enterprises	Government-Operated Institutions	Government Departments	Total
1926 .....	12.1	20.6	25.0	57.7	8.7	2.8	25.6	37.1	20.8	23.4	50.6	94.8
1927 .....	16.1	26.4	29.4	71.9	9.5	3.3	30.0	42.8	25.6	29.7	59.4	114.7
1928 .....	18.1	28.9	32.3	79.3	9.8	3.4	31.6	44.8	27.9	32.3	63.9	124.1
1929 .....	21.6	30.9	37.1	89.6	10.5	3.7	33.5	47.7	32.1	34.6	70.6	137.3
1930 .....	21.8	36.4	37.5	95.7	10.8	3.9	35.2	49.9	32.6	40.3	72.7	145.6
1931 .....	21.2	25.2	31.4	77.8	10.3	4.3	39.0	53.6	31.5	29.5	70.4	131.4
1932 .....	12.0	18.7	28.4	59.1	9.1	3.7	33.4	46.2	21.1	22.4	61.8	105.3
1933 .....	7.6	8.4	25.3	41.3	7.6	2.8	25.5	35.9	15.2	11.2	50.8	77.2
1934 .....	5.6	6.5	21.4	33.5	7.5	2.3	20.5	30.3	13.1	8.8	41.9	63.8
1935 .....	8.1	7.5	25.7	41.3	7.7	2.4	22.2	32.3	15.8	9.9	47.9	73.6
1936 .....	9.6	10.3	23.9	43.8	8.2	2.8	24.2	35.2	17.8	13.1	48.1	79.0
1937 .....	12.0	9.2	25.7	46.9	8.7	2.9	26.4	38.0	20.7	12.1	52.1	84.9
1938 .....	16.7	9.1	28.0	53.8	9.1	3.3	30.3	42.7	25.8	12.4	58.3	96.5
1939 .....	11.8	13.7	26.4	51.9	9.4	3.4	31.6	44.4	21.2	17.1	58.0	96.3
1940 .....	13.2	7.7	19.8	40.7	9.5	3.2	29.2	41.9	22.7	10.9	49.0	82.6
1941 .....	9.8	5.8	23.7	39.3	11.3	3.6	32.6	47.5	21.1	9.4	56.3	86.8
1942 .....	10.9	7.0	24.0	41.9	10.9	3.7	32.3	46.9	21.8	10.7	56.3	88.8
1943 .....	6.5	9.2	27.7	43.4	12.7	4.2	36.8	53.7	19.2	13.4	64.5	97.1
1944 .....	7.6	9.4	28.6	45.6	14.0	5.2	44.8	64.0	21.6	14.6	73.4	109.6
1945 .....	12.0	17.1	46.9	76.0	17.7	5.8	49.3	72.8	29.7	22.9	96.2	148.8
1946 .....	20.7	34.3	83.0	138.0	19.3	6.4	54.7	80.4	40.0	40.7	137.7	218.4
1947 .....	35.9	36.7	86.5	159.1	21.1	6.5	51.5	79.1	57.0	43.2	138.0	238.2
1948 .....	56.9	56.7	98.6	212.2	25.5	7.0	53.4	85.9	82.4	63.7	152.0	298.1
1949 .....	65.1	80.9	99.5	245.5	28.0	11.0	52.2	91.2	93.1	91.9	151.7	336.7
1950 .....	54.1	103.9	112.5	270.5	16.0	11.0	53.3	80.3	70.1	114.9	165.8	350.8
1951 .....	103.6	112.4	129.1	345.1	17.0	12.0	55.7	84.7	120.6	124.4	184.8	429.8

**TABLE 109. New Investment in Durable Physical Assets and Repair and Maintenance, and Expenditures on Other Goods and Services, All Municipal Governments, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment <sup>1</sup>	Repair and Maintenance <sup>1</sup>	New Investment, Repair and Maintenance <sup>1</sup>	Expenditures on Other Goods and Services	Municipal Expenditures on All Goods and Services
1926	44.7	28.1	72.8	211.2	284.0
1927	54.2	33.0	87.2	218.2	306.0
1928	60.1	34.7	94.8	215.2	310.0
1929	66.7	36.8	103.5	246.5	352.0
1930	72.6	38.7	111.3	286.7	398.0
1931	55.5	42.9	98.4	301.6	400.0
1932	46.1	36.7	82.8	273.2	356.0
1933	32.8	29.0	60.8	209.2	270.0
1934	27.2	22.6	49.8	217.2	267.0
1935	32.4	24.4	56.3	206.2	265.0
1936	33.3	26.6	59.9	208.1	268.0
1937	34.0	29.0	63.0	215.0	278.0
1938	36.1	33.3	69.4	212.6	282.0
1939	38.9	34.7	73.6	216.4	290.0
1940	27.0	32.1	59.1	225.9	285.0
1941	29.3	35.8	65.1	219.9	285.0
1942	30.3	35.6	65.9	224.1	290.0
1943	35.4	40.6	76.0	223.0	299.0
1944	36.8	49.5	86.3	241.7	328.0
1945	61.2	54.5	115.7	233.3	349.0
1946	110.4	60.4	170.8	249.2	420.0
1947	117.8	57.3	175.1	333.9	509.0
1948	152.0	59.8	211.8	406.2	618.0
1949	178.9	63.4	242.3	462.7	705.0
1950	210.8	64.8	275.6	480.4	756.0
1951	224.4	67.7	292.1	— <sup>2</sup>	— <sup>2</sup>

1. The new investment and repair and maintenance figures differ from those shown for government departments in Table 108 because of the inclusion above of expenditures on municipal schools to ensure comparability with the other data used.

2. Not available.

**TABLE 110. New Investment in Durable Physical Assets and Repair and Maintenance, and Total Government Expenditures, All Municipal Governments, Canada, Selected Years, 1926-1950**

(Millions of Dollars)

Year	New Investment, Repair and Maintenance <sup>1</sup>	All Other Government Expenditures	Total Public Expenditures Through Capital and Current Accounts	Adjustment for Inter-Governmental Transfer Payments	Total Public Expenditures on Capital and Current Account <sup>2</sup>
1926	72.8	198.9	271.7	14.4	257.3
1929	103.5	211.4	314.9	17.7	297.2
1930	111.3	219.8	331.1	17.7	313.4
1933	60.8	297.7	358.5	56.7	301.8
1937	63.0	313.4	376.4	80.2	296.2
1941	65.1	265.7	330.8	38.3	292.5
1944	86.3	276.7	363.0	46.2	316.8
1946	170.8	295.1	465.9	75.9	390.0
1948	211.8	454.3	666.1	119.1	547.0
1950	275.6	534.0	809.6	155.1	654.5

1. The new investment, repair and maintenance figures differ from those shown for government departments in Table 108 because of the inclusion above of expenditures on municipal schools to ensure comparability with the other data used.

2. Per Table 10 of Comparative Statistics of Public Finance.

**TABLE 111. New Investment in Durable Physical Assets and Repair and Maintenance, All Municipal Government Departments, by Type of Expenditure, Canada, 1926-1951**

(Millions of Dollars)

Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1926	18.6	6.4	25.0	19.7	5.9	25.6	38.3	12.3	50.6
1927	21.8	7.6	29.4	23.1	6.9	30.0	44.9	14.5	59.4
1928	24.0	8.3	32.3	24.3	7.3	31.6	48.3	15.6	63.9
1929	27.6	9.5	37.1	25.8	7.7	33.5	53.4	17.2	70.6
1930	27.9	9.6	37.5	27.1	8.1	35.2	55.0	17.7	72.7
1931	23.3	8.1	31.4	30.0	9.0	39.0	53.3	17.1	70.4
1932	21.1	7.3	28.4	25.7	7.7	33.4	46.8	15.0	61.8
1933	18.8	6.5	25.3	19.6	5.9	25.5	38.4	12.4	50.8
1934	16.0	5.4	21.4	15.8	4.7	20.5	31.8	10.1	41.9
1935	19.2	6.5	25.7	17.1	5.1	22.2	36.2	11.6	47.9
1936	17.5	6.4	23.9	18.6	5.6	24.2	36.1	12.0	48.1
1937	19.0	6.7	25.7	20.3	6.1	26.4	39.3	12.8	52.1
1938	20.8	7.2	28.0	23.3	7.0	30.3	44.1	14.2	58.3
1939	19.1	7.3	26.4	24.3	7.3	31.6	43.4	14.6	58.0
1940	14.6	5.2	19.8	22.5	6.7	29.2	37.1	11.9	49.0
1941	18.0	5.7	23.7	25.1	7.5	32.6	43.1	13.2	56.3
1942	18.8	5.2	24.0	25.8	6.5	32.3	44.6	11.7	56.3
1943	21.8	5.9	27.7	29.4	7.4	36.8	51.2	13.3	64.5
1944	21.7	6.9	28.6	36.5	8.3	44.8	58.2	15.2	73.4
1945	35.8	11.1	46.9	40.1	9.2	49.3	75.9	20.3	96.2
1946	63.9	19.1	83.0	44.5	10.2	54.7	108.4	29.3	137.7
1947	67.1	19.4	86.5	41.9	9.6	51.5	109.0	29.0	138.0
1948	73.1	25.5	98.6	43.4	10.0	53.4	116.5	35.5	152.0
1949	85.3	14.2	99.5	42.2	10.0	52.2	127.5	24.2	151.7 <sup>1</sup>
1950	99.8	12.7	112.5	44.0	9.3	53.3	143.8	22.0	165.8 <sup>1</sup>
1951	112.3	16.8	129.1	46.2	9.5	55.7	158.5	26.3	184.8 <sup>1</sup>

1. The Canadian total includes estimated investment expenditure for Newfoundland municipalities of less than \$1 million in 1949 to 1951.

**TABLE 112. New Investment in Durable Physical Assets, All Municipal Government Departments, by Type of Project, Canada, Selected Years, 1926-1948**

(Millions of Dollars)

Year	Public Works					Machinery and Equipment	Total	Duplications	New Investment <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total				
	Engineering	Building	Total						
1926	17.7	2.0	19.7	1.6	21.3	6.4	27.7	2.7	25.0
1929	25.5	3.8	29.3	2.3	31.6	9.5	41.1	4.0	37.1
1930	25.6	3.9	29.5	2.4	31.9	9.6	41.5	4.0	37.5
1933	18.2	1.7	19.9	1.6	21.5	6.5	28.0	2.7	25.3
1937	18.9	1.4	20.3	1.6	21.9	6.7	28.6	2.9	25.7
1941	17.6	1.3	18.9	1.5	20.4	5.7	26.1	2.4	23.7
1944	21.2	1.5	22.7	1.8	24.5	6.9	31.4	2.8	28.6
1946	55.8	10.6	66.4	5.3	71.7	19.1	90.8	7.8	83.0
1948	63.3	14.1	77.4	6.2	83.6	25.5	109.1	10.5	98.6

1. Equals total less duplications.

**TABLE 113. New Investment in Durable Physical Assets and Repair and Maintenance, All Municipal Government Departments, by Type of Project, Canada, Selected Years, 1926-1948**

(Millions of Dollars)

Year	Public Works					Machinery and Equipment	Total	Duplications	New Investment, Repair and Maintenance <sup>1</sup>
	Public Construction			Planning and Administrative Expenses	Sub-total				
	Engineering	Building	Total						
1926	35.9	4.3	40.2	3.2	43.4	12.3	55.7	5.1	50.6
1929	49.4	6.7	56.1	4.5	60.6	17.2	77.8	7.2	70.6
1930	50.8	7.0	57.8	4.6	62.4	17.7	80.1	7.4	72.7
1933	36.4	3.9	40.3	3.2	43.5	12.4	55.9	5.1	50.8
1937	37.7	3.6	41.3	3.3	44.6	12.8	57.4	5.3	52.1
1941	40.9	4.1	45.0	3.6	48.6	13.2	61.8	5.5	56.3
1944	54.0	5.6	59.6	4.8	64.4	15.2	79.6	6.2	73.4
1946	96.0	15.5	111.5	8.9	120.4	29.3	149.7	12.0	137.7
1948	102.5	18.9	121.4	9.7	131.1	35.5	166.6	14.6	152.0

1. Equals total less duplications.



TABLE 114. New Construction and Repair and Maintenance, All Municipal Government Departments, by Type, Canada, 1926-1951

(Millions of Dollars)

Year	New Construction			Repair and Maintenance			New Construction, Repair and Maintenance		
	Building	Engineering	Sub-total	Building	Engineering	Sub-total	Building	Engineering	Total
1926 .....	2.2	16.4	18.6	2.4	17.3	19.7	4.6	33.7	38.3
1927 .....	2.8	19.0	21.8	2.8	20.3	23.1	5.6	39.3	44.9
1928 .....	3.4	20.6	24.0	2.9	21.4	24.3	6.3	42.0	48.3
1929 .....	4.1	23.5	27.6	3.1	22.7	25.8	7.2	46.2	53.4
1930 .....	4.2	23.7	27.9	3.3	23.8	27.1	7.5	47.5	55.0
1931 .....	3.0	20.3	23.3	3.6	26.4	30.0	6.6	46.7	53.3
1932 .....	2.3	18.8	21.1	3.1	22.6	25.7	5.4	41.4	46.8
1933 .....	1.8	17.0	18.8	2.4	17.2	19.6	4.2	34.2	38.4
1934 .....	1.5	14.5	16.0	1.9	13.9	15.8	3.4	28.4	31.8
1935 .....	1.7	17.5	19.2	2.1	15.0	17.1	3.8	32.5	36.3
1936 .....	1.5	16.0	17.5	2.2	16.4	18.6	3.7	32.4	36.1
1937 .....	1.5	17.5	19.0	2.4	17.9	20.3	3.9	35.4	39.3
1938 .....	1.6	19.2	20.8	2.8	20.5	23.3	4.4	39.7	44.1
1939 .....	1.5	17.6	19.1	2.9	21.4	24.3	4.4	39.0	43.4
1940 .....	1.1	13.5	14.6	2.7	19.8	22.5	3.8	33.3	37.1
1941 .....	1.4	16.6	18.0	3.0	22.1	25.1	4.4	38.7	43.1
1942 .....	1.4	17.4	18.8	3.1	22.7	25.8	4.5	40.1	44.6
1943 .....	1.6	20.2	21.8	3.5	25.9	29.4	5.1	46.1	51.2
1944 .....	1.6	20.1	21.7	4.4	32.1	36.5	6.0	52.2	58.2
1945 .....	4.5	31.3	35.8	4.8	35.3	40.1	9.3	66.6	75.9
1946 .....	11.4	52.5	63.9	5.3	39.2	44.5	16.7	91.7	108.4
1947 .....	13.0	54.1	67.1	5.0	36.9	41.9	18.0	91.0	109.0
1948 .....	15.2	57.9	73.1	5.2	38.2	43.4	20.4	96.1	116.5
1949 .....	17.0	58.3	75.3	5.0	37.2	42.2	22.9	105.5	127.5
1950 .....	19.7	80.1	99.8	5.3	38.7	44.0	25.0	118.8	143.8
1951 .....	22.6	89.7	112.3	5.5	40.7	46.2	28.1	130.4	158.5

TABLE 115. New Investment in Durable Physical Assets and Repair and Maintenance, All Municipal Government Departments, by Province, Canada, Selected Years, 1933-1951

(Millions of Dollars)

Year	Type	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	All Municipalities <sup>1</sup>
1933 .....	New Investment .....	—	0.1	0.7	0.3	5.9	14.5	0.6	0.8	1.5	0.9	25.3
1933 .....	Repair and Maintenance .....	—	0.1	0.5	0.2	5.6	13.8	1.0	0.9	3.0	0.5	25.5
1933 .....	Total .....	—	0.1	1.2	0.5	11.5	28.3	1.6	1.7	4.5	1.4	50.8
1937 .....	New Investment .....	—	0.2	1.2	0.4	5.8	13.0	1.9	0.5	0.9	1.8	25.7
1937 .....	Repair and Maintenance .....	—	0.1	0.5	0.3	5.9	12.0	1.9	1.3	2.3	2.1	26.4
1937 .....	Total .....	—	0.3	1.7	0.7	11.7	25.0	3.8	1.8	3.2	3.9	52.1
1941 .....	New Investment .....	—	0.1	0.8	0.2	6.5	11.7	1.0	0.9	1.4	1.2	23.8
1941 .....	Repair and Maintenance .....	—	0.1	0.6	0.3	7.2	13.9	2.0	2.4	3.4	2.7	32.5
1941 .....	Total .....	—	0.1	1.4	0.5	13.7	25.6	3.0	3.3	4.8	3.9	56.3
1944 .....	New Investment .....	—	0.1	0.9	0.7	8.5	10.4	2.0	1.9	1.9	2.2	28.6
1944 .....	Repair and Maintenance .....	—	0.1	0.8	0.6	13.5	12.9	3.1	4.4	4.8	4.6	44.7
1944 .....	Total .....	—	0.1	1.7	1.3	22.0	23.3	5.1	6.3	6.7	6.8	73.3
1946 .....	New Investment .....	—	0.1	4.1	1.9	15.3	32.5	6.9	4.7	7.8	9.7	83.0
1946 .....	Repair and Maintenance .....	—	0.1	1.9	0.4	6.5	23.2	4.6	7.4	4.1	6.5	54.6
1946 .....	Total .....	—	0.1	6.0	2.3	21.8	55.7	11.5	12.1	11.9	16.2	137.6
1948 .....	New Investment .....	—	0.1	4.6	1.7	17.6	36.2	7.3	5.1	14.1	11.9	98.6
1948 .....	Repair and Maintenance .....	—	0.1	1.3	0.4	6.6	20.9	4.2	7.5	4.9	7.5	53.3
1948 .....	Total .....	—	0.1	5.9	2.1	24.2	57.1	11.5	12.6	19.0	19.4	151.9
1949 .....	New Investment .....	0.9	0.1	4.0	3.1	22.4	33.5	5.3	4.8	16.8	8.6	99.5
1949 .....	Repair and Maintenance .....	0.1	0.1	1.3	0.8	6.6	21.2	3.1	7.6	6.0	5.5	52.2
1949 .....	Total .....	1.0	0.1	5.3	3.9	29.0	54.7	8.4	12.4	22.8	14.1	151.7
1950 .....	New Investment .....	0.2	0.1	1.6	2.0	23.9	42.8	5.6	3.8	21.2	11.3	112.5
1950 .....	Repair and Maintenance .....	0.1	0.1	0.5	0.8	7.1	23.7	2.1	7.7	5.1	6.2	53.3
1950 .....	Total .....	0.3	0.1	2.1	2.8	31.0	66.5	7.7	11.5	26.3	17.5	165.8
1951 .....	New Investment .....	0.6	0.1	2.2	1.5	24.0	50.8	4.3	3.5	27.6	14.5	129.1
1951 .....	Repair and Maintenance .....	0.1	0.1	0.5	0.7	7.1	25.9	2.0	7.5	5.4	6.5	55.7
1951 .....	Total .....	0.7	0.1	2.7	2.2	31.1	76.7	6.3	11.0	33.0	21.0	184.8

1. For all years except 1949 to 1951 totals exclude Newfoundland.  
 2. Less than \$50,000.

**TABLE 116. New Investment in Durable Physical Assets, by Type of Enterprise  
and by Province, Canada, 1948-1951**

(Millions of Dollars)

Province and Year	Business				Housing, Institutions and Government Departments				Total
	Manufacturing	Utilities	Other	Sub-total	Housing	Institutions	Government Departments	Sub-total	
Newfoundland ..... 1949	8.3	2.2	8.8	19.3	11.0	3.0	7.0	21.0	40.3
1950	5.1	3.1	8.0	16.2	11.0	2.6	10.4	24.0	40.2
1951	9.7	4.0	14.2	27.9	11.0	3.0	11.5	25.5	53.4
Prince Edward Island ..... 1948	0.6	1.7	4.1	6.4	2.0	0.6	3.9	6.5	12.9
1949	0.3	1.7	5.2	7.2	2.3	0.9	5.1	8.3	15.5
1950	0.5	2.6	4.5	7.6	3.3	1.3	5.2	9.8	17.4
1951	0.2	2.3	4.2	6.7	3.6	0.5	3.3	7.4	14.1
Nova Scotia ..... 1948	12.2	23.2	22.7	58.1	24.1	6.5	27.6	58.2	116.3
1949	8.9	17.4	25.2	51.5	26.8	6.5	31.9	65.2	116.7
1950	8.1	21.8	28.9	58.8	26.7	9.9	28.4	65.0	123.8
1951	6.8	21.8	38.0	66.6	29.6	18.0	28.1	75.7	142.3
New Brunswick ..... 1948	15.0	12.5	18.6	46.1	18.7	4.1	15.7	38.5	84.6
1949	12.6	19.1	15.7	47.4	15.3	9.9	22.4	47.6	95.0
1950	7.3	17.1	20.6	45.0	16.7	8.9	23.6	49.2	94.2
1951	19.6	25.6	19.2	64.4	18.8	10.9	21.0	50.7	115.1
Quebec ..... 1948	185.7	141.9	142.2	469.8	174.4	48.4	104.4	327.2	797.0
1949	164.2	167.1	146.1	477.4	187.4	41.4	87.2	316.0	793.4
1950	155.1	148.1	165.9	469.1	227.8	50.6	97.1	375.5	844.6
1951	166.6	202.5	156.6	525.7	242.8	72.3	103.1	418.2	943.9
Ontario ..... 1948	289.4	229.4	281.7	800.5	236.5	44.7	101.2	382.4	1,182.9
1949	240.2	279.9	312.0	832.1	292.2	72.6	101.1	465.9	1,298.0
1950	239.3	307.4	359.0	905.7	321.2	72.9	130.3	524.4	1,430.1
1951	404.7	382.4	354.7	1,141.8	335.1	87.7	179.7	602.5	1,744.3
Manitoba ..... 1948	10.9	42.8	58.6	112.3	40.1	5.5	27.4	73.0	185.3
1949	13.5	43.1	69.2	125.8	41.3	6.9	25.1	73.3	199.1
1950	17.7	67.1	65.7	150.5	45.1	6.4	24.6	76.1	226.6
1951	16.7	66.9	64.6	148.2	49.3	12.0	43.6	104.9	253.1
Saskatchewan ..... 1948	5.2	17.5	90.6	113.3	28.1	7.6	17.0	52.7	166.0
1949	10.5	30.7	117.1	158.3	26.8	9.2	17.4	53.4	211.7
1950	8.4	51.5	111.8	171.7	22.5	11.1	21.6	55.2	226.9
1951	14.0	46.6	110.3	170.9	29.6	12.0	29.9	71.5	242.4
Alberta ..... 1948	16.5	29.8	128.3	174.6	52.8	11.4	45.8	110.0	284.6
1949	12.9	41.7	146.5	201.1	78.8	17.0	54.8	150.6	351.7
1950	20.2	55.1	164.1	239.4	83.4	21.8	65.3	170.5	409.9
1951	30.4	52.9	183.3	266.6	101.2	27.2	92.2	220.6	487.2
British Columbia ..... 1948	43.5	66.8	77.1	187.4	91.5	16.1	50.6	158.2	345.6
1949	64.4	76.0	70.2	210.6	94.1	20.7	54.5	169.3	379.9
1950	57.7	69.9	100.3	227.9	87.6	26.4	67.0	181.0	408.9
1951	47.2	87.3	81.6	216.1	86.0	28.5	81.8	196.3	412.4
Canada ..... 1948	579.0	565.6	823.9	1,968.5	668.2	144.9	393.6	1,206.7	3,175.2
1949	535.8	678.9	916.0	2,130.7	776.0	188.1	406.5	1,370.6	3,501.3
1950	519.4	743.7	1,028.8	2,291.9	845.3	211.9	473.5	1,530.7	3,822.6
1951	715.9	892.3	1,026.7	2,634.9	907.0	272.1	594.2	1,773.3	4,408.2

1. Excluding Newfoundland

TABLE 117. Repair and Maintenance of Durable Physical Assets, by Type of Enterprise and by Province, Canada, 1948-1951

(Millions of Dollars)

Province and Year	Business				Housing, Institutions and Government Departments				Total
	Manufacturing	Utilities	Other	Sub-total	Housing	Institutions	Government Departments	Sub-total	
Newfoundland ..... 1949	5.1	3.5	4.2	12.8	0.9	0.4	3.5	4.8	17.6
..... 1950	4.2	3.8	3.6	11.6	1.0	0.5	4.1	5.6	17.2
..... 1951	2.6	4.0	3.9	10.5	1.1	0.1	3.5	4.7	15.2
Prince Edward Island ..... 1948	0.3	1.8	1.5	3.6	0.5	0.3	1.1	1.9	5.5
..... 1949	0.2	1.6	1.3	3.1	1.0	0.3	1.1	2.4	5.5
..... 1950	0.2	1.8	1.5	3.5	1.0	0.4	1.9	3.3	6.8
..... 1951	0.2	1.8	1.5	3.5	1.0	0.2	2.4	3.6	7.1
Nova Scotia ..... 1948	10.8	16.0	11.0	37.8	5.8	1.2	8.8	15.8	53.6
..... 1949	10.2	13.6	12.8	36.6	6.3	1.5	4.2	12.0	48.6
..... 1950	8.8	14.2	12.8	35.8	9.0	1.1	4.9	15.0	50.8
..... 1951	9.4	14.8	13.6	37.8	9.0	1.1	5.0	15.1	52.9
New Brunswick ..... 1948	8.4	16.3	6.8	31.5	4.5	1.0	10.5	16.0	47.5
..... 1949	7.7	17.0	7.7	32.4	8.1	0.9	7.2	16.2	48.6
..... 1950	7.7	17.9	7.9	33.5	7.0	0.6	9.5	17.1	50.6
..... 1951	7.9	18.5	7.0	33.4	7.0	0.6	10.8	18.4	51.8
Quebec ..... 1948	96.9	120.5	60.5	277.9	42.6	13.6	31.6	87.8	365.7
..... 1949	99.7	109.0	69.3	278.0	44.5	8.6	28.7	81.8	359.8
..... 1950	101.7	107.7	68.1	277.5	48.0	10.3	33.0	91.3	368.8
..... 1951	99.9	113.0	62.3	275.2	51.0	16.5	37.3	104.8	380.0
Ontario ..... 1948	161.5	145.0	111.8	418.3	57.0	10.1	56.1	123.2	541.5
..... 1949	157.3	154.9	129.0	441.2	61.4	11.1	58.7	131.2	572.4
..... 1950	172.3	160.4	118.1	450.8	66.0	10.2	65.9	142.1	592.9
..... 1951	181.2	168.9	115.6	465.7	70.0	9.0	76.3	155.3	621.0
Manitoba ..... 1948	8.3	46.4	23.4	78.1	9.7	2.1	8.7	20.5	98.6
..... 1949	8.8	46.2	24.8	79.8	12.1	1.5	8.6	22.2	102.0
..... 1950	8.7	47.1	22.9	78.7	13.0	1.8	8.8	23.6	102.3
..... 1951	8.8	50.1	21.8	80.7	14.0	1.9	10.3	26.2	106.9
Saskatchewan ..... 1948	2.5	20.3	32.7	55.5	6.8	2.2	12.8	21.8	77.3
..... 1949	3.0	32.7	35.4	71.1	12.6	4.1	12.5	29.2	100.3
..... 1950	2.7	32.8	33.4	68.9	14.0	5.0	14.6	33.6	102.5
..... 1951	2.8	35.3	33.5	71.6	14.0	5.6	15.1	34.7	106.3
Alberta ..... 1948	6.9	32.0	36.7	75.6	12.8	2.6	14.3	29.9	105.5
..... 1949	7.7	37.5	44.2	89.4	12.6	2.7	13.5	28.8	118.2
..... 1950	7.9	37.3	35.1	80.3	14.0	2.9	21.6	38.5	118.8
..... 1951	7.3	39.8	36.2	83.3	15.0	2.8	24.9	42.7	126.0
British Columbia ..... 1948	37.2	40.1	36.5	113.8	22.2	2.1	28.6	52.9	166.7
..... 1949	34.2	48.9	40.7	123.8	16.7	3.0	24.0	43.7	167.5
..... 1950	31.2	50.6	40.3	122.1	18.0	2.0	29.8	49.8	171.9
..... 1951	30.9	52.8	39.0	122.7	19.0	1.7	33.6	54.3	177.0
Canada ..... 1948 <sup>1</sup>	332.8	438.4	320.9	1,092.1	161.9	35.4	172.5	369.8	1,461.9
..... 1949	333.9	464.9	369.4	1,168.2	176.2	34.1	162.0	372.3	1,540.5
..... 1950	345.4	473.6	343.7	1,162.7	191.0	34.8	194.1	419.9	1,582.6
..... 1951	351.0	499.0	334.4	1,184.4	201.1	39.5	219.2	459.8	1,644.2

1. Excluding Newfoundland.



TABLE 118. New Investment in Durable Physical Assets and Repair and Maintenance, by Type of Enterprise and by Province, Canada, 1948-1951

(Millions of Dollars)

Province and Year		Business				Housing, Institutions and Government Departments				Total
		Manufacturing	Utilities	Other	Sub-total	Housing	Institutions	Government Departments	Sub-total	
Newfoundland .....	1949	11.9	5.7	13.0	32.1	11.9	3.4	10.5	25.8	57.9
	1950	12.0	6.9	11.6	27.8	12.0	3.1	14.5	29.6	57.4
	1951	12.1	8.0	18.1	38.4	12.1	3.1	15.0	30.2	68.6
Prince Edward Island .....	1948	0.9	3.5	5.6	10.0	2.5	0.9	5.0	8.4	18.4
	1949	0.5	3.3	6.5	10.3	3.3	1.2	6.2	10.7	21.0
	1950	0.7	4.4	6.0	11.1	4.3	1.7	7.1	13.1	24.2
	1951	0.4	4.1	5.7	10.2	4.6	0.7	5.7	11.0	21.2
Nova Scotia .....	1948	23.0	39.2	33.7	95.9	29.9	7.7	36.4	74.0	169.9
	1949	19.1	31.0	38.0	88.1	33.1	8.0	36.1	77.2	165.3
	1950	16.9	36.0	41.7	94.6	35.7	11.0	33.3	80.0	174.6
	1951	16.2	36.6	51.6	104.4	38.6	19.1	33.1	90.8	195.2
New Brunswick .....	1948	23.4	28.8	25.4	77.6	23.2	5.1	26.2	54.5	132.1
	1949	20.3	36.1	23.4	79.8	23.4	10.8	29.6	63.8	143.6
	1950	15.0	35.0	28.5	78.5	23.7	9.5	33.1	66.3	144.8
	1951	27.5	44.1	26.2	97.8	25.8	11.5	31.8	69.1	166.9
Quebec .....	1948	262.6	262.4	202.7	747.7	217.0	62.0	136.0	415.0	1,162.7
	1949	263.9	276.1	215.4	755.4	231.9	50.0	115.9	397.8	1,153.2
	1950	256.8	255.8	234.0	746.6	275.8	60.9	130.1	466.8	1,213.4
	1951	266.5	315.5	218.9	800.9	293.8	88.8	140.4	523.0	1,323.9
Ontario .....	1948	450.9	374.4	393.5	1,218.8	293.5	54.8	157.3	505.6	1,724.4
	1949	397.5	434.8	441.0	1,273.3	353.6	83.7	159.8	597.1	1,870.4
	1950	411.6	467.8	477.1	1,356.5	387.2	83.1	196.2	666.5	2,023.0
	1951	585.9	551.3	470.3	1,607.5	405.1	96.7	256.0	757.8	2,365.3
Manitoba .....	1948	19.2	89.2	82.0	190.4	49.8	7.6	36.1	93.5	283.9
	1949	22.3	89.3	94.0	205.6	53.4	8.4	33.7	95.5	301.1
	1950	26.4	114.2	88.6	229.2	58.1	8.2	33.4	99.7	328.9
	1951	25.5	117.0	86.4	228.9	63.3	13.9	53.9	131.1	360.0
Saskatchewan .....	1948	7.7	37.8	123.3	168.8	34.9	9.8	29.8	74.5	243.3
	1949	13.5	63.4	152.5	229.4	39.4	13.3	29.9	82.6	312.0
	1950	11.1	84.3	145.2	240.6	36.5	16.1	36.2	88.8	329.4
	1951	16.8	81.9	143.8	242.5	43.6	17.6	45.0	106.2	348.7
Alberta .....	1948	23.4	61.8	165.0	250.2	65.6	14.2	60.1	139.9	390.1
	1949	20.6	79.2	190.7	290.5	91.4	19.7	68.3	179.4	469.9
	1950	20.1	92.4	199.2	319.7	97.4	24.7	86.9	209.0	528.7
	1951	37.7	92.7	219.5	349.9	116.2	30.0	117.1	263.3	613.2
British Columbia .....	1948	80.7	106.9	113.6	301.2	113.7	18.2	79.2	211.1	512.3
	1949	98.6	124.9	110.9	334.4	110.8	23.7	78.5	213.0	547.4
	1950	88.9	120.5	140.6	350.0	105.6	28.4	96.8	230.8	580.8
	1951	78.1	140.1	120.6	338.8	105.0	30.2	115.4	250.6	589.4
Canada .....	1948 <sup>1</sup>	911.8	1,004.0	1,144.8	3,060.6	830.1	180.3	566.1	1,576.5	4,637.1
	1949	869.7	1,143.8	1,285.4	3,298.9	952.2	222.2	568.5	1,742.9	5,041.8
	1950	864.8	1,217.3	1,372.5	3,454.6	1,036.3	246.7	667.6	1,950.6	5,405.2
	1951	1,066.9	1,391.3	1,361.1	3,819.3	1,108.1	311.6	813.4	2,233.1	6,052.4

1. Excluding Newfoundland.

TABLE 119. New Investment in Durable Physical Assets and Repair and Maintenance,  
Manufacturing Industries, by Province, Canada, 1945-1951

(Millions of Dollars)

Province and Year	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
Newfoundland .....									
1949	2.3	6.0	8.3	1.5	3.6	5.1	3.8	9.6	13.4
1950	0.9	4.2	5.1	1.0	3.2	4.2	1.9	7.4	9.3
1951	2.4	7.3	9.7	0.8	1.8	2.6	3.2	9.1	12.3
Prince Edward Island .....									
1945	0.2	0.1	0.3	— <sup>1</sup>	— <sup>1</sup>	— <sup>1</sup>	0.2	0.1	0.3
1946	0.1	0.2	0.3	0.1	0.1	0.2	0.2	0.3	0.5
1947	0.1	0.3	0.4	0.3	0.2	0.5	0.4	0.5	0.9
1948	0.2	0.4	0.6	0.1	0.2	0.3	0.3	0.6	0.9
1949	0.1	0.2	0.3	0.1	0.1	0.2	0.2	0.3	0.5
1950	0.3	0.2	0.5	0.1	0.1	0.2	0.4	0.3	0.7
1951	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.4
Nova Scotia .....									
1945	1.4	2.7	4.1	2.7	7.3	10.0	4.1	10.0	14.1
1946	4.0	4.1	8.1	2.7	3.9	6.6	6.7	8.0	14.7
1947	2.4	5.8	8.2	4.6	4.8	9.4	7.0	10.6	17.6
1948	5.9	6.3	12.2	4.9	5.9	10.8	10.8	12.2	23.0
1949	3.4	5.5	8.9	2.7	7.5	10.2	6.1	13.0	19.1
1950	1.4	6.7	8.1	1.6	7.2	8.8	3.0	13.9	16.9
1951	0.8	6.0	6.8	1.6	7.8	9.4	2.4	13.8	16.2
New Brunswick .....									
1945	1.2	4.3	5.5	2.3	6.1	8.4	3.5	10.4	13.9
1946	1.4	3.5	4.9	1.1	4.3	5.4	2.5	7.8	10.3
1947	3.5	8.1	11.6	1.0	5.7	6.7	4.5	13.8	18.3
1948	4.4	10.6	15.0	1.3	7.1	8.4	5.7	17.7	23.4
1949	2.6	10.0	12.6	1.2	6.5	7.7	3.8	16.5	20.3
1950	1.2	6.1	7.3	1.4	6.3	7.7	2.6	12.4	15.0
1951	4.3	15.3	19.6	1.3	6.6	7.9	5.6	21.9	27.5
Quebec .....									
1945	23.4	64.1	87.5	17.5	47.3	64.8	40.9	111.4	152.3
1946	40.3	65.0	105.3	18.5	45.7	64.2	58.8	110.7	169.5
1947	68.7	110.6	179.3	16.5	64.4	80.9	85.2	175.0	260.2
1948	58.0	127.7	185.7	20.5	76.4	96.9	78.5	204.1	282.6
1949	50.4	113.8	164.2	19.1	80.6	99.7	69.5	194.4	263.9
1950	41.8	113.3	155.1	24.7	77.0	101.7	66.5	190.3	256.8
1951	47.7	118.9	166.6	19.4	80.5	99.9	66.7	199.8	266.5
Ontario .....									
1945	38.7	109.5	148.2	31.2	84.5	115.7	69.9	194.0	263.9
1946	62.0	110.5	172.5	25.1	87.2	112.3	87.1	197.7	284.8
1947	83.0	170.4	253.4	28.7	102.9	131.6	111.7	273.3	385.0
1948	89.2	200.2	289.4	38.0	123.5	161.5	127.2	323.7	450.9
1949	63.1	177.1	240.2	30.0	127.3	157.3	93.1	304.4	397.5
1950	67.7	171.6	239.3	30.8	141.5	172.3	98.5	313.1	411.6
1951	127.4	277.3	404.7	34.8	146.4	181.2	162.2	423.7	585.9
Manitoba .....									
1945	1.8	5.1	6.9	1.9	5.1	7.0	3.7	10.2	13.9
1946	2.5	4.5	7.0	1.8	4.4	6.2	4.3	8.9	13.2
1947	3.3	6.9	10.2	1.6	5.5	7.1	4.9	12.4	17.3
1948	2.6	8.3	10.9	2.2	6.1	8.3	4.8	14.4	19.2
1949	3.6	9.9	13.5	2.3	6.5	8.8	5.9	16.4	22.3
1950	5.4	12.3	17.7	2.3	6.4	8.7	7.7	18.7	26.4
1951	6.5	10.2	16.7	2.3	6.5	8.8	8.8	16.7	25.5
Saskatchewan .....									
1945	1.1	2.0	3.1	0.6	1.7	2.3	1.7	3.7	5.4
1946	1.6	1.8	3.4	0.9	1.2	2.1	2.5	3.0	5.5
1947	1.6	2.9	4.5	0.7	1.7	2.4	2.3	4.6	6.9
1948	2.0	3.2	5.2	1.0	1.5	2.5	3.0	4.7	7.7
1949	3.5	7.0	10.5	0.6	2.4	3.0	4.1	9.4	13.5
1950	2.2	6.2	8.4	1.0	1.7	2.7	3.2	7.9	11.1
1951	3.6	10.4	14.0	1.1	1.7	2.8	4.7	12.1	16.8
Alberta .....									
1945	1.7	2.9	4.6	0.9	2.4	3.3	2.6	5.3	7.9
1946	2.4	2.5	4.9	1.4	1.6	3.0	3.8	4.1	7.9
1947	4.5	6.2	10.7	1.3	4.2	5.5	5.8	10.4	16.2
1948	9.8	6.7	16.5	2.1	4.8	6.9	11.9	11.5	23.4
1949	4.4	8.5	12.9	1.6	6.1	7.7	6.0	14.6	20.6
1950	4.5	15.7	20.2	3.2	4.7	7.9	7.7	20.4	28.1
1951	12.7	17.7	30.4	2.7	4.6	7.3	15.4	22.3	37.7
British Columbia .....									
1945	6.4	13.5	19.9	6.0	16.2	22.2	12.4	29.7	42.1
1946	17.9	12.9	30.8	5.2	15.9	21.1	23.1	28.6	51.9
1947	17.6	32.0	49.6	7.7	21.3	29.0	25.3	53.3	78.6
1948	12.7	30.8	43.5	8.8	28.4	37.2	21.5	59.2	80.7
1949	23.2	41.2	64.4	7.6	26.6	34.2	30.8	67.8	98.6
1950	19.8	37.9	57.7	9.3	21.9	31.2	29.1	59.8	88.9
1951	16.8	30.4	47.2	9.3	21.6	30.9	26.1	52.0	78.1
Canada <sup>2</sup> .....									
1945	75.9	204.2	280.1	63.1	170.6	233.7	139.0	374.8	513.8
1946	132.2	205.0	337.2	56.8	164.3	221.1	189.0	369.3	558.3
1947	184.7	343.2	527.9	62.4	210.7	273.1	247.1	533.9	801.0
1948	184.8	394.2	579.0	78.9	253.9	332.8	263.7	648.1	911.8
1949	156.6	379.2	535.8	66.7	267.2	333.9	223.3	646.4	869.7
1950	145.2	374.2	519.4	75.4	270.0	345.4	220.6	644.2	864.8
1951	222.3	493.6	715.9	73.4	277.8	351.0	295.7	771.2	1,066.9

1. Less than \$50,000.

2. Excluding Newfoundland for years 1945 to 1948 (inclusive).

**TABLE 120. New Investment<sup>1</sup> in Durable Physical Assets and Repair and Maintenance, Manufacturing Industries, by City, Canada, 1946-1951**

(Millions of Dollars)

City		New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
		Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
Greater Cities:										
St. John's .....	1949	0.5	0.9	1.4	0.3	0.3	0.6	0.8	1.2	2.0
	1950	0.6	1.5	2.1	0.3	0.3	0.6	0.9	1.8	2.7
	1951	1.1	1.4	2.5	0.2	0.3	0.5	1.3	1.7	3.0
Halifax .....	1946	0.4	0.5	0.9	0.6	0.5	1.1	1.0	1.0	2.0
	1947	0.6	1.4	2.0	1.2	0.9	2.1	1.8	2.3	4.1
	1948	0.8	1.4	2.2	1.1	1.0	2.1	1.9	2.4	4.3
	1949	0.6	1.5	2.1	0.5	1.6	2.1	1.1	3.1	4.2
	1950	0.8	1.8	2.6	0.9	0.8	1.7	1.7	2.6	4.3
	1951	0.4	0.8	1.2	0.9	0.9	1.8	1.3	1.7	3.0
Saint John .....	1946	0.2	0.5	0.7	0.1	0.7	0.8	0.3	1.2	1.5
	1947	0.2	1.0	1.2	0.3	1.3	1.6	0.5	2.3	2.8
	1948	0.2	1.1	1.3	0.3	1.3	1.6	0.5	2.4	2.9
	1949	0.1	0.9	1.0	0.3	1.1	1.4	0.4	2.0	2.4
	1950	0.2	0.9	1.1	0.5	0.7	1.2	0.7	1.6	2.3
	1951	3.1	7.6	10.7	0.5	0.8	1.3	3.6	8.4	12.0
Quebec .....	1946	1.3	1.3	2.6	0.6	2.0	2.6	1.9	3.3	5.2
	1947	2.0	2.3	4.3	0.8	2.5	3.3	2.8	4.8	7.6
	1948	2.7	4.4	7.1	1.4	2.5	3.9	4.1	6.9	11.0
	1949	2.9	5.4	8.3	1.2	3.5	4.7	4.1	8.9	13.0
	1950	1.9	4.4	6.3	1.1	2.4	3.5	3.0	6.8	9.8
	1951	1.2	4.4	5.6	1.1	2.5	3.6	2.3	6.9	9.2
Montreal .....	1946	17.5	20.9	38.4	7.2	22.4	29.6	24.7	43.3	68.0
	1947	38.7	40.5	79.2	8.3	25.8	34.1	47.0	66.3	113.3
	1948	32.4	51.7	84.1	9.9	30.5	40.4	42.3	82.2	124.5
	1949	30.1	42.1	72.2	9.7	30.5	40.2	39.8	72.6	112.4
	1950	22.5	44.0	66.5	9.2	29.2	38.4	31.7	73.2	104.9
	1951	32.3	40.0	72.3	9.2	30.4	39.6	41.5	70.4	111.9
Ottawa .....	1946	2.4	2.7	5.1	0.8	2.3	3.1	3.2	5.0	8.2
	1947	4.2	6.4	10.6	1.3	4.0	5.3	5.5	10.4	15.9
	1948	4.3	6.6	10.9	0.9	3.5	4.4	5.2	10.1	15.3
	1949	2.6	3.2	5.8	0.6	3.4	4.0	3.2	6.6	9.8
	1950	2.3	3.8	6.1	0.5	3.2	3.7	2.8	7.0	9.8
	1951	1.0	3.2	4.2	0.5	3.2	3.7	1.5	6.4	7.9
Toronto .....	1946	13.5	25.3	38.8	6.6	17.1	23.7	20.1	42.4	62.5
	1947	23.7	36.3	60.0	8.1	20.8	28.9	31.8	57.1	88.9
	1948	22.7	39.3	62.0	8.4	24.5	32.9	31.1	63.8	94.9
	1949	14.1	39.6	53.7	7.2	24.8	32.0	21.3	64.4	85.7
	1950	15.6	38.3	53.9	6.3	25.2	31.5	21.9	63.5	85.4
	1951	33.4	45.1	78.5	6.5	24.5	31.0	39.9	69.6	109.5
Hamilton .....	1946	4.9	11.5	16.4	1.9	9.7	11.6	6.8	21.2	28.0
	1947	4.4	23.6	28.0	2.6	13.1	15.7	7.0	36.7	43.7
	1948	9.8	21.7	31.5	2.8	15.3	18.1	12.6	37.0	49.6
	1949	6.6	16.1	22.7	2.9	18.0	20.9	9.5	34.1	43.6
	1950	3.4	13.3	16.7	2.9	19.8	22.7	6.3	33.1	39.4
	1951	22.6	52.2	74.8	3.1	20.2	23.3	25.7	72.4	98.1
London .....	1946	0.9	1.8	2.7	0.6	1.6	2.2	1.5	3.4	4.9
	1947	1.2	2.5	3.7	0.6	1.6	2.2	1.8	4.1	5.9
	1948	2.3	5.0	7.3	1.1	4.8	5.9	3.4	9.8	13.2
	1949	3.9	6.3	10.2	1.1	3.2	4.3	5.0	9.5	14.5
	1950	8.2	10.8	19.0	1.2	5.8	7.0	9.4	16.6	26.0
	1951	4.3	7.7	12.0	1.1	5.6	6.7	5.4	13.3	18.7
Windsor .....	1946	2.4	4.9	7.3	2.0	6.5	8.5	4.4	11.4	15.8
	1947	2.6	4.8	7.4	2.1	6.9	9.0	4.7	11.7	16.4
	1948	3.0	6.5	9.5	2.4	8.7	11.1	5.4	15.2	20.6
	1949	3.3	6.0	9.3	1.9	8.5	10.4	5.2	14.5	19.7
	1950	5.4	7.6	12.4	2.1	9.1	11.2	7.5	16.1	23.6
	1951	11.5	14.6	26.1	2.1	8.7	10.8	13.6	23.3	36.9
Winnipeg .....	1946	2.5	2.5	5.0	1.6	4.1	5.7	4.1	6.6	10.7
	1947	2.3	4.7	7.0	1.5	3.8	5.3	3.8	8.5	12.3
	1948	1.8	5.1	6.9	1.7	3.9	5.6	3.5	9.0	12.5
	1949	2.6	6.4	9.0	1.7	4.4	6.1	4.3	10.8	15.1
	1950	4.4	7.6	12.0	1.8	4.1	5.9	6.2	11.7	17.9
	1951	5.7	7.2	12.9	1.9	3.9	5.8	7.6	11.1	18.7
Vancouver .....	1946	7.6	6.1	13.7	2.3	5.4	7.7	9.9	11.5	21.4
	1947	8.8	11.2	20.0	2.8	6.5	9.3	11.6	17.7	29.3
	1948	5.7	10.3	16.0	3.1	8.0	11.1	8.8	18.3	27.1
	1949	4.1	11.1	15.2	2.8	8.2	11.0	6.9	19.3	26.2
	1950	4.1	9.7	13.8	2.4	8.7	11.1	6.5	18.4	24.9
	1951	6.9	11.2	18.1	2.4	8.4	10.8	9.3	19.6	28.9

1. Excludes capital items charged to operating expenses.



**TABLE 120. New Investment<sup>1</sup> in Durable Physical Assets and Repair and Maintenance, Manufacturing Industries, by City, Canada, 1946-1951 — Continued**

(Millions of Dollars)

City		New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
		Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
Greater Cities — Concluded:										
Victoria .....	1946	0.5	0.4	0.9	0.1	0.6	0.7	0.6	1.0	1.6
	1947	0.6	1.3	1.9	0.1	0.5	0.6	0.7	1.8	2.5
	1948	0.7	2.0	2.7	0.3	1.1	1.4	1.0	3.1	4.1
	1949	0.7	1.4	2.1	0.2	1.3	1.5	0.9	2.7	3.6
	1950	0.4	0.9	1.3	0.3	1.3	1.6	0.7	2.2	2.9
	1951	1.5	2.6	4.1	0.2	1.4	1.6	1.7	4.0	5.7
Total Greater Cities .....	1946	54.1	78.4	132.5	24.4	72.9	97.3	78.5	151.3	229.8
	1947	89.3	136.0	225.3	29.7	87.7	117.4	119.0	223.7	342.7
	1948	86.4	155.1	241.5	33.4	105.1	138.5	119.8	260.2	380.0
	1949	72.1	140.9	213.0	30.4	108.8	139.2	102.5	249.7	352.2
	1950	69.8	144.0	213.8	29.5	110.6	140.1	99.3	254.6	353.9
	1951	125.0	198.0	323.0	29.7	110.8	140.5	154.7	308.8	463.5
Other Major Cities:										
Sherbrooke .....	1946	0.4	1.0	1.4	0.2	0.9	1.1	0.6	1.9	2.5
	1947	0.2	1.9	2.1	0.2	0.8	1.0	0.4	2.7	3.1
	1948	0.6	1.8	2.4	0.4	1.0	1.4	1.0	2.8	3.8
	1949	0.3	1.3	1.6	0.3	1.1	1.4	0.6	2.4	3.0
	1950	0.2	1.9	2.1	0.3	1.1	1.4	0.5	3.0	3.5
	1951	0.1	3.2	3.3	0.3	1.2	1.5	0.4	4.4	4.8
Three Rivers .....	1946	0.4	2.0	2.4	0.3	3.4	3.7	0.7	5.4	6.1
	1947	0.2	3.1	3.3	0.3	3.7	4.0	0.5	6.8	7.3
	1948	0.4	2.1	2.5	0.5	4.4	4.9	0.9	6.5	7.4
	1949	0.3	1.7	2.0	0.4	4.2	4.6	0.7	5.9	6.6
	1950	0.3	2.7	3.0	0.7	3.6	4.3	1.0	6.3	7.3
	1951	0.5	3.7	4.2	1.0	3.9	4.9	1.5	7.6	9.1
Brantford .....	1946	0.6	1.8	2.4	0.4	1.7	2.1	1.0	3.5	4.5
	1947	1.1	3.1	4.2	0.5	2.2	2.7	1.6	5.3	6.9
	1948	1.7	3.4	5.1	0.9	3.0	3.9	2.6	6.4	9.0
	1949	1.4	3.0	4.4	0.7	2.7	3.4	2.1	5.7	7.8
	1950	0.8	2.2	3.0	0.4	1.7	2.1	1.2	3.9	5.1
	1951	1.6	2.8	4.4	0.5	1.7	2.2	2.1	4.5	6.6
Kingston .....	1946	1.0	1.6	2.6	0.3	1.2	1.5	1.3	2.8	4.1
	1947	0.8	1.9	2.7	0.3	1.5	1.8	1.1	3.4	4.5
	1948	0.5	1.6	2.1	0.3	1.4	1.7	0.8	3.0	3.8
	1949	0.4	2.3	2.7	0.3	1.5	1.8	0.7	3.8	4.5
	1950	1.0	3.1	4.1	0.3	1.5	1.8	1.3	4.6	5.9
	1951	3.1	4.2	7.3	0.3	1.7	2.0	3.4	5.9	9.3
St. Catharines .....	1946	0.5	1.7	2.2	0.4	1.8	2.2	0.9	3.5	4.4
	1947	0.4	2.1	2.5	0.4	2.0	2.4	0.8	4.1	4.9
	1948	0.3	1.9	2.2	0.3	2.2	2.5	0.6	4.1	4.7
	1949	1.1	2.3	3.4	0.3	2.3	2.6	1.4	4.6	6.0
	1950	1.0	3.9	4.9	0.3	2.9	3.2	1.3	6.8	8.1
	1951	1.0	6.6	7.6	0.3	2.4	2.7	1.3	9.0	10.3
Sudbury <sup>2</sup> .....	1946	0.5	1.1	1.6	0.9	3.9	4.8	1.4	5.0	6.4
	1947	3.3	2.4	5.7	1.2	5.3	6.5	4.5	7.7	12.2
	1948	5.5	5.9	11.4	1.2	5.3	6.5	6.7	11.2	17.9
	1949	1.7	2.1	3.8	0.7	3.8	4.5	2.4	5.9	8.3
	1950	1.7	1.5	3.2	1.9	7.9	9.8	3.6	9.4	13.0
	1951	1.5	1.7	3.2	2.0	8.5	10.5	3.5	10.2	13.7
Fort William .....	1946	0.8	0.4	1.2	0.3	0.6	0.9	1.1	1.0	2.1
	1947	0.6	0.7	1.3	0.4	0.9	1.3	1.0	1.6	2.6
	1948	2.9	1.4	4.3	0.8	1.3	2.1	3.7	2.7	6.4
	1949	0.3	1.4	1.7	0.3	1.6	1.9	0.6	3.0	3.6
	1950	— <sup>3</sup>	0.7	0.7	0.3	1.5	1.8	0.3	2.2	2.5
	1951	0.7	1.7	2.4	0.3	1.6	1.9	1.0	3.3	4.3
Kitchener .....	1946	3.0	1.3	4.3	0.6	1.9	2.5	3.6	3.2	6.8
	1947	1.2	3.0	4.2	0.7	2.4	3.1	1.9	5.4	7.3
	1948	0.8	2.8	3.6	0.6	2.2	2.8	1.4	5.0	6.4
	1949	1.3	1.9	3.2	0.5	1.9	2.4	1.8	3.8	5.6
	1950	1.3	2.0	3.3	0.5	1.8	2.3	1.8	3.8	5.6
	1951	1.4	1.8	3.2	0.5	1.9	2.4	1.9	3.7	5.6
Regina .....	1946	0.3	0.4	0.7	0.1	0.7	0.8	0.4	1.1	1.5
	1947	0.3	0.4	0.7	0.1	0.8	0.9	0.4	1.2	1.6
	1948	0.7	0.6	1.3	0.5	0.4	0.9	1.2	1.0	2.2
	1949	0.2	1.4	1.6	0.1	0.9	1.0	0.3	2.3	2.6
	1950	0.8	1.0	1.8	0.7	0.3	1.0	1.5	1.3	2.8
	1951	1.3	0.8	2.1	0.7	0.2	0.9	2.0	1.0	3.0

1. Excludes capital items charged to operating expenses.

2. Includes suburban area.

3. Less than \$50,000.

**TABLE 120. New Investment<sup>1</sup> in Durable Physical Assets and Repair and Maintenance, Manufacturing Industries,  
by City, Canada, 1946-1951 - Concluded**  
(Millions of Dollars)

City	New Investment			Repair and Maintenance			New Investment, Repair and Maintenance		
	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Sub- total	Construc- tion	Machinery and Equipment	Total
<b>Other Major Cities - Concluded:</b>									
Saskatoon .....	1946	0.1	0.3	0.4	0.1	0.3	0.4	0.2	0.6
	1947	0.4	0.8	1.2	0.1	0.2	0.3	0.5	1.0
	1948	0.5	0.8	1.3	0.2	0.3	0.5	0.7	1.1
	1949	3.6	3.3	6.9	0.2	0.3	0.5	3.8	3.6
	1950	0.4	0.5	0.9	0.1	0.3	0.4	0.5	0.8
	1951	0.3	0.3	0.6	0.2	0.3	0.5	0.5	0.6
Calgary .....	1946	1.0	0.7	1.7	0.3	1.5	1.8	1.3	2.2
	1947	0.9	1.3	2.2	0.3	1.4	1.7	1.2	2.7
	1948	1.6	1.4	3.0	0.9	1.7	2.6	2.5	3.1
	1949	0.6	1.5	2.1	0.4	1.5	1.9	1.0	3.0
	1950	0.7	1.4	2.1	1.2	0.9	2.1	1.9	2.3
	1951	0.5	1.1	1.6	1.2	0.9	2.1	1.7	2.0
Edmonton .....	1946	0.9	0.6	1.5	0.6	0.7	1.3	1.5	1.3
	1947	2.5	1.3	3.8	0.6	0.7	1.3	3.1	2.0
	1948	8.2	1.6	9.8	0.6	1.1	1.7	8.8	2.7
	1949	1.1	2.2	3.3	0.6	1.0	1.6	1.7	3.2
	1950	1.2	2.3	3.5	0.6	0.8	1.4	1.8	3.1
	1951	1.9	1.6	3.5	0.7	0.9	1.6	2.6	2.5
<b>Total Other Major Cities .....</b>	<b>1946</b>	<b>9.5</b>	<b>12.9</b>	<b>22.4</b>	<b>4.5</b>	<b>18.6</b>	<b>23.1</b>	<b>14.0</b>	<b>31.5</b>
	<b>1947</b>	<b>11.9</b>	<b>22.0</b>	<b>33.9</b>	<b>5.1</b>	<b>21.9</b>	<b>27.0</b>	<b>17.0</b>	<b>43.9</b>
	<b>1948</b>	<b>23.7</b>	<b>25.3</b>	<b>49.0</b>	<b>7.2</b>	<b>24.3</b>	<b>31.5</b>	<b>30.9</b>	<b>49.6</b>
	<b>1949</b>	<b>12.3</b>	<b>24.4</b>	<b>36.7</b>	<b>4.8</b>	<b>22.8</b>	<b>27.6</b>	<b>17.1</b>	<b>47.2</b>
	<b>1950</b>	<b>9.4</b>	<b>23.2</b>	<b>32.6</b>	<b>7.3</b>	<b>24.3</b>	<b>31.6</b>	<b>16.7</b>	<b>47.5</b>
	<b>1951</b>	<b>13.9</b>	<b>29.5</b>	<b>43.4</b>	<b>8.0</b>	<b>25.2</b>	<b>33.2</b>	<b>21.9</b>	<b>54.7</b>
<b>Total All Major Cities .....</b>	<b>1946</b>	<b>63.6</b>	<b>91.3</b>	<b>154.9</b>	<b>28.9</b>	<b>91.5</b>	<b>120.4</b>	<b>92.5</b>	<b>182.8</b>
	<b>1947</b>	<b>101.2</b>	<b>158.0</b>	<b>259.2</b>	<b>34.8</b>	<b>109.6</b>	<b>144.4</b>	<b>136.0</b>	<b>267.6</b>
	<b>1948</b>	<b>110.1</b>	<b>180.4</b>	<b>290.5</b>	<b>40.6</b>	<b>129.4</b>	<b>170.0</b>	<b>150.7</b>	<b>309.8</b>
	<b>1949</b>	<b>84.4</b>	<b>165.3</b>	<b>249.7</b>	<b>35.2</b>	<b>131.6</b>	<b>166.8</b>	<b>119.6</b>	<b>296.9</b>
	<b>1950</b>	<b>79.2</b>	<b>167.2</b>	<b>246.4</b>	<b>36.8</b>	<b>134.9</b>	<b>171.7</b>	<b>116.0</b>	<b>302.1</b>
	<b>1951</b>	<b>138.9</b>	<b>227.5</b>	<b>366.4</b>	<b>37.7</b>	<b>136.0</b>	<b>173.7</b>	<b>176.6</b>	<b>363.5</b>
<b>Centres With Population From 5 to 30 Thousand</b>	1946	27.6	27.6	55.2	10.9	37.9	48.8	38.5	65.5
	1947	32.2	51.4	83.6	13.8	47.9	61.7	46.0	99.3
	1948	39.5	75.2	114.7	20.2	62.1	82.3	59.7	137.3
	1949	27.2	66.7	93.9	14.6	59.4	74.0	41.8	126.1
	1950	25.3	54.8	80.1	14.7	65.4	80.1	40.0	120.2
	1951	43.4	94.5	137.9	17.5	68.3	85.8	60.9	162.8
<b>Centres With Less Than 5 Thousand Pop- ulation<sup>2</sup></b>	1946	41.0	45.1	86.1	17.0	41.2	58.2	58.0	86.3
	1947	51.3	77.8	129.1	13.8	53.2	67.0	65.1	131.0
	1948	35.2	76.6	111.8	18.1	62.4	80.5	53.3	139.0
	1949	45.0	86.3	131.3	16.9	76.2	93.1	61.9	162.5
	1950	40.7	92.2	132.9	23.9	69.7	93.6	64.6	161.9
	1951	40.0	98.9	138.9	18.2	73.3	91.5	58.2	172.2
<b>Total<sup>3</sup></b>	<b>1946</b>	<b>132.2</b>	<b>164.0</b>	<b>296.2</b>	<b>56.8</b>	<b>170.6</b>	<b>227.4</b>	<b>189.0</b>	<b>523.6</b>
	<b>1947</b>	<b>184.7</b>	<b>287.2</b>	<b>471.9</b>	<b>62.4</b>	<b>210.7</b>	<b>273.1</b>	<b>247.1</b>	<b>497.9</b>
	<b>1948</b>	<b>184.8</b>	<b>332.2</b>	<b>517.0</b>	<b>78.9</b>	<b>253.9</b>	<b>332.8</b>	<b>263.7</b>	<b>586.1</b>
	<b>1949</b>	<b>156.6</b>	<b>318.3</b>	<b>474.9</b>	<b>66.7</b>	<b>267.2</b>	<b>333.9</b>	<b>223.3</b>	<b>585.5</b>
	<b>1950</b>	<b>145.2</b>	<b>314.2</b>	<b>459.4</b>	<b>75.4</b>	<b>270.0</b>	<b>345.4</b>	<b>220.6</b>	<b>584.2</b>
	<b>1951</b>	<b>222.3</b>	<b>420.9</b>	<b>643.2</b>	<b>73.4</b>	<b>277.6</b>	<b>351.0</b>	<b>295.7</b>	<b>698.5</b>

1. Excludes capital items charged to operating expenses.

2. Includes rural areas.

3. Excludes Newfoundland for years 1946 to 1948 (inclusive).

TABLE 121. Expenditures<sup>1</sup> on Relief Works and Total Relief, All Governments, Canada, 1930-1940

(Millions of Dollars)

Item	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Total 1930-1940
Federal Government:												
Relief works .....	4.0	26.5	15.5	10.3	21.4	48.4	39.0	21.7	17.4	30.3	7.6	242.1
Total relief .....	4.4	38.3	36.7	35.9	60.7	79.4	80.8	89.3	49.6	59.5	28.6	563.2
All Provincial Governments:												
Relief works .....	4.0	25.2	16.9	4.9	26.5	18.1	16.1	19.9	35.1	17.6	2.3	186.6
Total relief .....	9.2	42.0	37.5	39.1	74.3	69.5	54.4	56.1	72.3	50.2	24.2	528.8
All Municipal Governments:												
Relief works .....	1.5	12.2	10.7	1.4	1.7	1.1	0.6	0.7	0.6	1.6	0.6	32.7
Total relief .....	4.8	16.2	20.8	23.0	23.5	24.0	23.3	19.8	19.0	15.5	8.9	198.8
All Governments:												
Relief works .....	9.5	63.9	43.1	16.6	49.6	67.6	55.7	42.3	53.1	49.5	10.5	461.4
Total relief .....	18.4	96.5	95.0	97.9	158.5	172.9	158.5	165.3	140.9	125.3	61.6	1,291.0

1. Federal expenditures include contributions to provincial and municipal relief; provincial expenditures include contributions to municipal relief.

TABLE 122. New Investment in Durable Physical Assets for Direct War Purposes, by Sponsoring Authority, Canada, 1939-1945

(Millions of Dollars)

Year	Direct Federal Government <sup>1</sup>			United States Government <sup>2</sup>			Private and Public Utilities <sup>3</sup>			Private Business			All Direct War Investment		
	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Sub-total	Construction	Machinery and Equipment	Total
1939....	4.9	2.5	7.4	—	—	—	—	—	—	—	—	—	4.9	2.5	7.4
1940....	107.4	51.5	158.9	—	—	—	—	—	—	7.8	116.8	124.6	115.2	168.3	283.5
1941....	230.4	130.9	361.3	—	—	—	11.2	5.6	16.8	61.7	157.3	219.0	303.3	293.8	597.1
1942....	306.1	126.1	432.2	20.0	—	20.0	50.3	24.9	75.2	84.9	196.0	280.9	461.3	347.0	808.3
1943....	271.6	132.4	404.0	120.9	—	120.9	64.3	123.6	187.9	20.5	109.5	130.0	477.3	365.5	842.8
1944....	124.3	53.4	177.7	66.4	—	66.4	5.5	173.0	178.5	5.0	93.8	98.8	201.2	320.2	521.4
1945....	52.0	22.5	74.5	—	—	—	—	58.1	58.1	—	85.4	85.4	52.0	166.0	218.0
Total..	1,096.7	519.3	1,616.0	207.3	—	207.3	131.3	385.2	516.5	179.9	758.8	938.7	1,615.2	1,663.3	3,278.5

1. Includes outlays by the Government of United Kingdom for war production facilities in Canada. These facilities were purchased later by the Canadian Government. The value of these expenditures is estimated at \$28, \$84, \$61 and \$34 million in the years 1940, 1941, 1942 and 1943, respectively.

2. Includes outlays on Alaska Highway and various airstrips in Canada.

3. Includes expenditures on such projects as Canol and Shipshaw and outlays by Park Steamships.

TABLE 123. New Investment in Durable Physical Assets for Direct War Purposes, by Type of Project, Canada, 1939-1945

(Millions of Dollars)

Year	Defence Construction			Plant Expansion			Canadian Government Merchant Shipping	Total
	Canadian Government	U.S. Government <sup>1</sup>	Sub-total	Government Financed	Privately Financed	Sub-total		
1939.....	4.3	—	4.3	3.1	—	3.1	—	7.4
1940.....	97.2	—	97.2	61.7	124.6	186.3	—	283.5
1941.....	150.8	—	150.8	210.5	235.8	446.3	—	597.1
1942.....	237.6	42.0	279.6	194.6	323.4	518.0	10.7	808.3
1943.....	214.1	207.9	422.0	192.4	145.2	337.6	83.2	842.8
1944.....	113.1	91.4	204.5	64.6	99.6	164.2	152.7	521.4
1945.....	47.8	—	47.8	26.7	85.4	112.1	58.1	218.0
1939-45 Total .....	864.9	341.3	1,206.2	733.6	1,014.0	1,767.6	304.7	3,278.5

1. Comprises expenditures on the Alaska Highway, on various airstrips in Canada and on the Canol Pipe line project.



## **Part III**

### **Supplementary Material**



## APPENDIX A. CONCEPT AND DEFINITIONS

### Concept of Investment

This study has dealt with what has been termed "private and public investment expenditures". As was pointed out in Section 1 these are expenditures made on durable physical assets by entrepreneurs and governments, and outlays made on new house building, including major improvements and alterations, by both owner-occupiers and landlords.

These private and public investment expenditures are part of a much broader total of investment. In the broadest sense, investment expenditures may be considered as that part of current outlay on goods and services which is made in order that an economic service may be rendered in the future. The other part of current outlay is for goods and services for current consumption. The sum total of all facilities and tools, skills and knowledge that may be used to render future economic services represents the total stock of capital in a country. Any expenditures which result in a flow of goods or services into this stock are known as investment expenditures and they represent capital formation. Such investment expenditures may be expressed in either gross or net terms. Gross investment or gross capital formation is a measure of the flow of all goods and services into the stock of capital with no adjustment being made for the amounts of capital being used up in the process of production. Net investment or net capital formation is this flow adjusted for the amounts of capital being consumed over the same period. The present study deals only with gross investment. As yet no overall estimates of capital consumption have been made that would be comparable with the present estimates of capital formation.

The above concept of investment is broader than most studies of investment or capital formation require. Usually only the three types of expenditures outlined in Section 1 are included under investment.<sup>1</sup> In addition to "private and public investment" these are the value of the net change in the volume of inventories held by the business community, and net changes in foreign assets held by Canadians. By thus narrowing the concept, investment expenditures are reduced to measurable quantities and a criterion is established for distinguishing between expenditures made for investment purposes and those made for consumption. This eliminates the consideration of outlays on such intangible assets as education and good will, the measurement of which is impractical if not impossible. It also removes from consideration outlays by consumers for durable moveable goods, since these outlays are considered to constitute final consumption rather than investment. Expenditures on new housing, whether intended for owner occupancy or for rental, are considered to be more akin to investment than consumption and are included in the totals. Such housing expenditures are treated differently from outlays on consumers' durables

because the future returns from the former expenditures are measurable quantities. The returns on leased property may be estimated from the rentals paid by tenants and the operating expenses of landlords. These estimates in turn may be used to calculate the imputed returns on owner-occupied dwellings.

For the purposes of this report consideration has been given only to that type of investment expenditure included in the "private and public investment" category. Thus, the overall investment total shown includes all investment outlays on durable physical assets, but excludes investment expenditures of any other type. A concept of investment thus limited is considered most appropriate for use in a study of this nature. The study has been concerned with the rate of gross capital formation in the various sectors of the economy, the parts played by public investment and private investment under differing economic conditions and the impact of investment expenditures on incomes, employment and prices. The "private and public investment" concept lends itself particularly well to such a discussion. It reflects the rate at which the capital structures in the various sectors of the economy are being developed. In addition this concept permits assessing the extent to which public investment has compensated for declines in private investment during periods of low economic activity or has competed with private investment in periods of prosperity. Since this concept deals with a more or less homogeneous set of investment goods, i.e., those created through construction or the building of machinery and equipment, it reflects the immediate income, employment and price effects of outlays on such goods.

The above concept of investment is somewhat different from the concept of "Gross Home Investment" used in the National Accounts. Gross home investment includes only investment outlays which constitute offsets to the gross savings of individuals, corporations, non-residents and governments. Thus, it excludes expenditures on durable physical assets by governments but includes the value of the net change in the volume of inventories held by the business community. This concept is of particular use in indicating the sources of financing for this investment program and in studies of the impact of such financing on the economy in aggregate terms. It is also useful in relating investment to the spending and saving behaviour of different groups—corporations, persons and governments.

A reconciliation between private and public new investment and "Gross Home Investment" per the National Accounts is shown below for the years 1949 and 1950.<sup>2</sup> Further information relating to reconciliation of private and public new investment and investment in plant, equipment and housing will be found on page 24 in Section 1 and in Table 17 in Part II.

<sup>1</sup> See p. 9.

<sup>2</sup> *Economic Indicators, Review of Government Accounts 1950-51*, Budget Papers, p. 13, *House of Commons Debates*, April 10, 1951.



		Millions of Dollars	
		1949	1950
PRIVATE AND PUBLIC NEW INVESTMENT		3,502	3,823
<i>Deduct:</i>			
Federal and Provincial Hospitals and Municipal Schools		-95	-119
Government Housing Excluding C.M.H.C. Rental Housing		-27	-32
Government Department Outlay		-406	-473
Plant, Equipment and Housing Expenditures		2,974	3,199
Reconciliation Item <sup>1</sup>		-6	-10
Plant, Equipment and Housing Expenditures per National Accounts		2,968	3,189
<i>Add:</i>			
Changes in Inventories		+231	+995
TOTAL GROSS HOME INVESTMENT		3,199	4,184

<sup>1</sup> Represents value of revisions since publication of the National Accounts.

### Coverage of Estimates

The estimates in this study cover outlays on durable productive assets by all sectors of the economy. This includes investment by the business community; by such institutions as churches, schools, universities and hospitals; by governments, both on durable physical assets and on development and conservation of natural resources; and by individuals on housing. All estimates of new investment represent gross expenditures, that is, they include outlays made to replace existing assets.

### Organization of Data

The data have been organized in such a way as to indicate the sources in the economy generating the demand for investment goods over the period, and the types of projects upon which the investment outlays have been made.

With some exceptions the data cover the years 1926 to 1950 inclusive. Most tables in Part II also contain preliminary estimates for 1951 based on surveys of anticipated capital expenditures and other information available.

The figures are shown separately for the private and public sectors. The former covers all investment made by non-government agencies. Normally this type of expenditure is made with a view to earning a future return, and therefore is (with some exceptions) sensitive to short-run changes in the economic outlook. In the case of privately operated institutions this is not always true. Public investment includes outlays made directly by government departments and by government corporations, boards and agencies of all types. Investment of this type is to a large extent related to the long-term development of the economy, and is not subject to the same degree as is private investment to sudden changes in the economic outlook. But, as available records indicate, certain components of public investment have fluctuated more substantially than others.

The data are also organized by industrial groupings based on the Canadian Standard Industrial Classification.<sup>1</sup> The industry groups include both privately and publicly operated establishments.

The detailed tables in Part II show separately outlays for construction and those for the acquisition of machinery and equipment. Repair and maintenance data are similarly organized.

Figures shown in the repair and maintenance category represent expenditures made to maintain the existing stock of durable assets in a normal state of repair. The point might be made that such outlays do not conform to a narrow concept of investment. They do, however, have similar characteristics in that they are to some extent postponable, and draw on the same pool of materials and labour as do expenditures on new investment.

Most investment data are shown in current dollars. To facilitate a study of real changes in investment expenditures over the period under review a number of the component series have also been shown in terms of constant dollars. The constant dollar series eliminates the effect of price changes and makes possible a study of volume changes that have taken place.

### Definitions

*Durable Physical Assets*—The durable physical assets considered in this study are in general structures, engineering works, machinery and equipment created or acquired for the purpose of producing goods or services. These assets are considered to be durable when they continue to be used in their original form for more than one year, the usual accounting period. Expenditures on durable consumer goods (with the exception of housing) are excluded, since these are considered to be end products. Only those assets erected in Canada or acquired for use within the country are included. Where applicable, therefore, the estimates cover outlays by foreign firms for branch plants in Canada but exclude expenditures by Canadian firms on plants built in other countries.

*Construction*—Construction investment includes gross expenditures on new buildings, engineering structures and land improvements. Building construction includes housing, factory buildings, warehouses, stores, theatres, schools, office buildings and a great variety of others. Engineering structures cover such projects as highways, bridges, transmission lines, power dams, railway roadbeds and similar other works. Expenditures made by mining and oil firms for the purposes of exploration and development are also included under construction. While such expenditures may not result in the immediate creation of a capital asset they do represent a part of the capital expenditures necessary for the development of mineral resources.

The value of construction work includes both contract work and work done by the firms' own employees. The value covers both the cost of erecting new structures and the value of any installations which are considered to be an integral part of the structures. These installations include such items as heating and ventilating

<sup>1</sup> Cf. *Standard Industrial Classification Manual*, Dominion Bureau of Statistics, Ottawa, 1948.

equipment and elevators. Purchases of land or of used buildings are excluded since these involve only the transfer of property and not the production of a new asset.

In addition to outlays for new buildings and structures the construction estimates include expenditures made on major improvements to existing structures. A major improvement to a building is considered to be any work that involves the structural alteration of the building, such as the addition of a new wing or an additional storey or similar substantial change affecting the quality or the layout of the structure. In the case of major improvements to highways the concept is somewhat different. The resurfacing or rebuilding of any extended length of street or highway is considered to be a major improvement.

The expenditures shown for each year represent as far as possible the value of construction work put in place in that year irrespective of the time that payment was made.

*Resources Development and Conservation*—Investment in the development and conservation of natural resources covers the outlays by governments and others on all those activities which contribute to reforestation, re-grassing, geological and other surveys, fish and wildlife preservation, and related work. In general only special projects which may add to the stock of resources, such as reforestation, or may contribute to the improvement of existing resources, such as irrigation, or may facilitate the development of resources, e.g., geological exploration, have been classified as new investment.

*Machinery and Equipment*—Machinery and equipment investment includes the installed cost of machinery, motors, etc., and the delivered cost of office furniture and fixtures, motor vehicles and other transportation equipment. An item is classified to the machinery and equipment category if it is of such a nature that it can be moved from the structure in which it is housed without materially altering the structure. Expenditures on machinery are included in the year in which the machinery is acquired physically by the end user, and represent the total cost of the machine including any progress payments that may have been made in the earlier years.

The estimates reflect gross expenditures including replacement costs before deduction for scrap or trade-in values. Machinery includes both that for use by the owner and that for rent to others.

Included with machinery investment, in addition to those items normally considered as capital items, are certain smaller types of equipment which are normally charged to operating or current account. Examples include small tools and office equipment. These items are referred to in this study as "capital items charged to operating expenses" because they are usually used up in less than one accounting year.

Expenditures on military vehicles, aircraft, naval vessels, and other equipment purchased for national defence have been excluded for the years 1940 to 1945 inclusive and for 1949, 1950 and 1951. This has been done to conform with the generally accepted practice of considering armaments as expendable types of physical assets in periods of war or threat of war. However, the comparability of the series on public investment over the period surveyed here is little affected by this exclusion because military equipment expenditures have usually been small in peacetime.

*Repair and Maintenance Expenditures*—Repair and maintenance expenditures include the value of all materials, labour, repair parts and other costs attributable to the upkeep of durable physical assets. They exclude, where possible, the expenditures made for such purposes as char and janitor service. In the case of streets and highways, repair outlays include only expenditures made on minor repairs; the re-surfacing of a stretch of highway is included under new construction. A somewhat different concept is used in assessing repair and maintenance outlays in the resources development and conservation category. Here items relating to ordinary government services of a continuing nature which in general are designed more for the purpose of conservation than for development were taken as expenditure for maintenance. Examples are forest ranger service and game and fisheries patrols. Similiar expenditures by private firms, where they occur, are also included.

*Elimination of Duplications*—The objective in the processing of raw data was to arrive at estimates of gross private and public investment in durable physical assets for the whole economy, with all duplications eliminated. To achieve this end it was necessary to make some adjustments in the estimates of new investment expenditures in individual industries and sectors. Thus by excluding purchases of land and used plant and equipment there may be some understatement of what is ordinarily described as capital expenditures in accounting terminology. Hence in the industries affected the rate at which the stock of capital is built up may be understated. However, while such transactions involve a transfer of existing assets from one sector of the economy to another, and thus may increase the capital assets of an individual industry, they do not represent an increase in the capital assets of the country taken as a whole.

The total cost of construction of any project may include outlays made for the purchase of construction tools or machinery and outlays for repair incidental to the main project. Similarly, expenditures for resources development and conservation may include outlays for structures such as fire towers and for equipment such as that used for fire-fighting. The estimates shown in this study exclude such duplications. However, in the case of government investment the data are organized so as to show both investment in each category including duplications and total investment excluding duplications.

A more detailed description of sources of estimates, their coverage and quality will be found in Appendix B.



## APPENDIX B. NOTES ON SOURCES, ESTIMATING TECHNIQUES AND QUALITY OF ESTIMATES

The last historical investment series for Canada was published in *Public Investment and Capital Formation*, which contained data up to and including 1941. The present series represents a revision of the previous series and its extension to 1951. Much of the investment and repair and maintenance data is based on the annual surveys of capital expenditures begun by the Dominion Bureau of Statistics in 1941. Only a small number of investment sectors were canvassed by survey in 1941, but the sectors covered were rapidly expanded after 1945. Details of estimating techniques used in these surveys will be found in the Department of Trade and Commerce publication, *Private and Public Investment in Canada, Outlook 1951*. The investment and repair and maintenance expenditures shown for 1950 are preliminary estimates and those for 1951 are anticipated capital expenditures by business and other groups.

The notes that follow provide for each table in Part II a reference to the basic data used, their sources and the techniques employed in arriving at the estimates shown. Some assessment is also made of the relative quality of the estimates provided in the various tables. Similar information is given for the tables appearing in the text in Part I, in cases in which the data are based on sources other than Part II. All material is based on information available as of June 30, 1951, and many of the estimates for the years 1950 and 1951 must therefore be considered as preliminary and subject to revision.

The notes are organized in 12 sections, a section being devoted to each of the 10 sections in Part I and the related tables in Part II. The remaining two sections cover Appendices C and D.

### SECTION 1. INVESTMENT AND THE NATIONAL ECONOMY

All investment data referred to in the text for this section are based on Tables 1 to 17 in Part II.

The estimates of civilian employment appearing on page 12 are based primarily on the Dominion Bureau of Statistics publication, *Labour Force Estimates, 1931—1950*. This publication provided data from 1931 only. Estimates were made for 1921 on the basis of material available from the 1921 Decennial Census. To assure that the 1921 estimates were comparable with those shown for later years the figures of gainfully occupied in 1921 were adjusted on the ratio of labour force employment in 1931 to gainfully occupied in 1931 as shown in the Census. The Dominion Bureau of Statistics estimates showed complete industry detail for paid workers only. In the present estimates an allowance has been made for employers, own-account and unpaid workers in each industry, on the basis of the ratio of such persons to paid workers as shown in the various census reports. The 1939 figures were adjusted on the basis of the 1941 census. Data for 1949 and 1950 were obtained from unpublished material provided by the Dominion Bureau of Statistics.

The estimates of Net National Income at Factor Cost appearing on page 13 are based on data appearing in the *National Accounts* prepared by the Dominion Bureau of Statistics. The revised estimates of the industrial distribution presently being prepared by the National Income Unit at the Dominion Bureau of Statistics were not available in time for inclusion in this report. The industrial detail shown is based on preliminary data. For 1939 estimates of salaries, wages and supplementary labour income were available in published form in the Dominion Bureau of Statistics publication, *Estimates of Labour Income*. Corporation profits by industry for 1944 were run back to 1939 on the basis of the series on corporation profits published by the Bank of Canada. It was assumed, in the case of net income of unincorporated business other than agriculture, that the industrial distribution was the same as in

1949. Sufficient detail was available on other types of investment income to enable a reasonable industrial distribution to be made. The industrial breakdown here differs slightly from that in the *National Accounts* in that community and domestic service have been included with government. Estimates of national income in these groups were prepared on the basis of data on salaries and wages and supplementary labour income received.

The figures on Non-Government Investment shown in the table on page 13 represent investment in plant, equipment and housing as shown in the *National Accounts of Canada and the United States* respectively.

Of the data shown in the table on page 14, those on gross national product and personal expenditure on consumer goods and services are taken from the *National Accounts*; population, employment and investment data are taken from other tables in this report; estimates of average hours worked in non-agricultural industries for the years 1929 and 1939 are based on information contained in *Wage Rates and Hours of Labour in Canada*, published by the Department of Labour. The hours of work in individual industries were weighted by the employment in these industries to obtain an estimate for all industries combined. The figure for 1950 is based on material appearing in *The Labour Force*, published by the Dominion Bureau of Statistics.

The values shown for exports and gross national product in the table on page 14 are taken from *Trade of Canada* and the *National Accounts* respectively. The constant dollar figures have been obtained by deflating current dollar values by the price indices described below.

The price indices shown in the table on page 15 come from several sources. Export and import prices are from the Dominion Bureau of Statistics report, *Export and Import Price Indexes*.



Prices of consumer goods and services and gross national product are from the *National Accounts*. The investment price index is the implicit index obtained after investment in current dollars had been converted to constant dollars by the methods described later in this section.

Canadian purchases of machinery and equipment appearing in the table on page 23 are total investment expenditures in new machinery and equipment as shown in Table 13 in Part II. The value of imported machinery and equipment was compiled by extracting the value of imported items of producers' machinery and equipment from import statistics as shown in *Trade of Canada*. In some cases it was necessary to deduct an allowance for parts where the values of new machines and parts were not shown separately. The total figures on imported machinery and equipment are exclusive of border crossing charges, transportation costs within Canada and any mark-ups by Canadian dealers.

The estimates of depreciation charges and similar business costs appearing in the table on page 25 are taken from the *National Accounts*.

TABLE 1.—POPULATION, NEW PRIVATE AND PUBLIC INVESTMENT, EXPORTS AND GROSS NATIONAL PRODUCT, CANADA, 1926-1951.

The population estimates are as of June 1 of each year and are taken from the Dominion Bureau of Statistics publication, *Population of Canada by Provinces, 1921-1950—Estimated as of June 1 for Inter-censal Years*. Estimates of private and public investment are the totals taken from Table 2. Export values are from *Trade of Canada, 1949*, Volume I, published by the Dominion Bureau of Statistics, for years to 1949; 1950 values have been computed from monthly data and the 1951 figure represents a preliminary estimate prepared in connection with the Department's periodic appraisal of the Canadian economic outlook. Estimates of gross national product are from the *National Accounts, Income and Expenditure 1926-1950 and Supplementary Tables*, published by the Dominion Bureau of Statistics. Preliminary estimates for 1951 are by the Department of Trade and Commerce.

TABLE 2.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, PRIVATE AND PUBLIC, IN CURRENT AND CONSTANT DOLLARS, CANADA, 1926-1951.

Figures shown in this table are the totals from Tables 6 and 7, explanations of which are given below.

TABLE 3.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, ALL GOVERNMENTS, BY DEPARTMENTS AND AGENCIES, CANADA, 1926-1951.

Figures for government departments and all agencies are from Tables 82, 90 and 108 for Federal, provincial and municipal governments respectively. Notes explaining these tables will be found in Sections 7, 8 and 9 of this Appendix.

TABLE 4.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND GOVERNMENT EXPENDITURES ON OTHER GOODS AND SERVICES, CANADA, 1926-1951.

This table totals the relevant items for each level of government as shown in Tables 83, 91 and 109. Explanatory notes for these component tables will be found in Sections 7, 8 and 9 of this Appendix.

TABLE 5.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND TOTAL GOVERNMENT EXPENDITURES, ALL GOVERNMENTS, CANADA, SELECTED YEARS, 1926-1950.

For detail of the first eight items see Tables 86, 87, 94, 95, 112 and 113. For detail of the last two items see Tables 84, 92 and 110. Totals in Table 5 are a summation of the values shown for the related items in the tables listed above. For explanations of these items see notes to the appropriate tables in Sections 7, 8 and 9 of this Appendix.

TABLE 6.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, BY TYPE OF PRIVATE AND PUBLIC ENTERPRISE, IN CURRENT DOLLARS, CANADA, 1926-1951.

Estimates of public new investment are taken from the related items shown in Table 8, the explanation of which appears in the notes to that table. Estimates of private new investment for business are obtained by deducting investment by government-owned enterprises from total business investment as shown in Table 2. Private new investment in institutions and housing are from the related items in Tables 70 and 74 respectively. Explanations will be found in the notes to these component tables.

TABLE 7.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, BY TYPE OF PRIVATE AND PUBLIC ENTERPRISE, IN CONSTANT DOLLARS, CANADA, 1926-1951.

The estimates shown in this table were obtained by expressing the values shown in Table 6 in terms of constant (1935-1939) dollars. In converting current dollars to constant dollars separate price indices were prepared for housing, other construction and for machinery and equipment.

The price index for housing was taken from *Residential Real Estate in Canada*, page 406. This index was based on 1939, and to provide figures comparable with the other components the index was converted to a 1935-39 base for use here. The index is constructed by combining an index of wholesale prices of residential building materials with an index of wage rates in building trades. For further details see *Residential Real Estate in Canada*, pp. 400-407.

The price index for other construction was prepared by combining an index of wholesale prices of building and construction materials, from the Dominion Bureau of Statistics publication, *Prices and Price Indexes*,

with an index of wage rates in the construction industry from *Wage Rates and Hours of Labour in Canada*, published by the Department of Labour. The two indices were combined by weighting the materials index by 58.33 and the wage index by 41.67. These weights were taken from the Department of Reconstruction and Supply publication, *Manpower and Material Requirements for a Housing Program in Canada*. During the war and post-war years, i.e., from 1941 to date, an efficiency factor was introduced. It was assumed that in this period when building was delayed because of supply bottlenecks and when full employment brought less efficient and less well trained workers into the labour force, the actual cost of building would increase somewhat more than might be indicated by material prices and wage rates alone. To allow for this increased cost the price index was increased. The adjustment began with 2 per cent in 1941, increased to 12 per cent in 1946, and decreased to 4 per cent in 1950.

The price index used for machinery and equipment has two major components, machinery and equipment produced and sold in Canada and that produced in the United States and sold in Canada. It was considered desirable to treat the imported items separately from those produced domestically because of the large proportion of machinery entering Canadian investment from abroad.

The price index for the Canadian component of machinery and equipment was constructed by combining an index of wages in the metals and metal products industry with an index of material costs in the iron and steel and non-ferrous metal products industries. To obtain the wage index the wage bills in the iron and steel and their products industry were combined with the wage bills in the non-ferrous metals and their products industry. The resulting total was converted to a wage index on a 1935-39 base. This index was used to convert the combined wage bill into constant (1935-39) dollars. The value of materials in constant (1935-39) dollars was obtained by deflating the cost of materials in the iron and steel and non-ferrous metal industries by the price indices of iron and steel and non-ferrous metals respectively. The constant dollar value was obtained by adding the two deflated totals. The final machinery and equipment price index was obtained by dividing the constant dollar values of labour and materials combined into the current dollar values of the same items. Information on wage and materials bills is from *Iron and Steel and Their Products* and *Non-Ferrous Metals in Canada*, both Dominion Bureau of Statistics publications. Price data are from *Prices and Price Indexes*.

A price index for the United States component was available for the years 1929 to 1942. This index, known as the Shavell Index, was published in the United States Department of Commerce publication, *Survey of Current Business*, May, 1943. To extend this index back to 1926 and project it ahead to date, an index was established in the same way as that used for the Canadian component and this was linked to the Shavell Index. For the United States component the wage index was based on wages paid in the iron and steel and non-ferrous metals industries. The materials index was based on

cost of materials in the same two industries. Basic data were obtained from various issues of the *Survey of Current Business*. The two indices were weighted by the wage and materials bills in the two industries as published in the biennial United States *Census of Manufactures*. Weights for the intervening years were obtained by straight-line interpolation.

The two indices, i.e., for the Canadian and United States components, were combined by weighting each index, the Canadian index by the value of domestically produced machinery and equipment entering investment and the United States index by the value imported from the United States. The value imported from the United States was determined by extracting the value of imported items from *Trade of Canada*, and increasing this value to allow for such border crossing costs as duty, exchange, sales and excise taxes and transportation of equipment to Canadian destinations.

TABLE 8.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL GOVERNMENT ENTERPRISES, INSTITUTIONS, HOUSING AND DEPARTMENTS, CANADA, 1926-1951.

This table combines the expenditures of all levels of government. Detail for Federal, provincial and municipal governments are shown in Tables 82, 90 and 108 respectively. In addition to expenditures by these governments, totals also include outlays made by the United States Government on defence installations in Canada during World War II. The latter expenditures include amounts spent on the Canol project, included under Government-Owned Enterprises, outlays made on the Alaska Highway and various air strips in North-Western and North-Eastern Canada, included under Government Departments. Information on the extent of these expenditures was obtained from *The Alaska Highway*, a report by the United States Congress House Committee on Roads, 1946.

TABLE 9.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL GOVERNMENT DEPARTMENTS BY TYPE OF EXPENDITURE, CANADA, 1926-1951.

Detail for this table comes from similar tables for each of the three levels of government (See notes to Tables 85, 93 and 111 in Sections 7, 8 and 9 of this Appendix). In addition the totals include amounts spent by the United States Government on various air strips in Canada and on that portion of the Alaska Highway which is in Canadian territory.

TABLE 10.—NEW CONSTRUCTION AND REPAIR AND MAINTENANCE, ALL GOVERNMENT DEPARTMENTS, BY TYPE, CANADA, 1926-1951.

This table combines totals for the three levels of government, Federal, provincial and municipal, as shown in Tables 88, 96 and 114. In addition outlays by the United States Government on the items included in Table 9 have been included as new engineering construction.



TABLE 11.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, BY TYPE OF BUSINESS AND OTHER ENTERPRISE, IN CURRENT DOLLARS, CANADA, 1926-1951.

This table provides a summary of new investment in the major industrial sectors. The figures for primary industries are the totals from Tables 19 to 23, for manufacturing from Table 26, for utilities from Table 41, for trade, finance and commercial services from Table 66, for housing from Table 70, and for institutions from Table 73. The figures for government departments are from Table 8 and include the United States component.

TABLE 12.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, BY TYPE OF BUSINESS AND OTHER ENTERPRISE, IN CONSTANT DOLLARS, CANADA, 1926-1951.

This table shows the same detail as Table 11 with the current dollar figures converted to constant (1935-1939) dollars. The deflators and method used were the same as those described in the notes to Table 7.

TABLE 13.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, BY TYPE OF EXPENDITURE, IN CURRENT AND CONSTANT DOLLARS, CANADA, 1926-1951.

Current dollar figures of new construction expenditures and purchases of new machinery and equipment are a summation of all such expenditures in all sectors, which go to make up the grand total of private and public investment. The New Construction item includes government expenditures on resources development and conservation to the extent described in Appendix A. While the latter expenditures are not for the purpose of construction in the strict sense of the term, they are included for the sake of convenience of presentation. Otherwise it would have been necessary to establish a third category in all relevant summary tables. The extent of these expenditures on resources development and conservation is shown in Table 9.

Constant dollar figures have been obtained by using the same deflators described in the notes to Table 7, housing and other construction being deflated separately and the results added to obtain the estimates of new construction in terms of constant dollars. Machinery and equipment expenditures were deflated by using the machinery and equipment price index described there.

TABLE 14.—NEW CONSTRUCTION AND REPAIR AND MAINTENANCE, BY TYPE OF ENTERPRISE, CANADA, 1926-1951.

This table breaks down total new construction, and repair and maintenance to construction, into major types. In the case of new construction, the total is broken into housing, other building and engineering construction. In the case of repair the breakdown is between housing and other construction only.

The housing figures are taken from Table 70. Other construction was divided into building and engineering by making separate estimates for each sector of investment. Government outlays on the two types of con-

struction are from Table 10. In other sectors where large parts of total construction expenditures are of an engineering nature, ratios of engineering to total construction were obtained by an examination of annual reports of major companies and other available data. Sectors treated in this way include steam and electric railways, oil pipe lines, municipal waterworks, primary woods operations, primary mining industries, water transportation, telephones and broadcasting. Ratios obtained in this manner were applied to construction expenditures of each of the sectors listed for each year to obtain estimates of engineering construction values. It was known that small amounts of engineering construction took place in other sectors, particularly in manufacturing. To allow for this an arbitrary allowance of 5 per cent of manufacturing new construction was assumed to be for engineering purposes.

TABLE 15.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL ENTERPRISES, BY TYPE OF EXPENDITURE, CANADA, 1926-1951.

This table shows the total current dollar values of all new private and public investment and all expenditures on repair and maintenance, broken down between construction and machinery and equipment. Figures are a summation of all such expenditures in all sectors which go to make up the grand total of private and public investment. Both the new construction and the repair and maintenance to construction categories include the appropriate expenditures by governments on resources development and conservation.

TABLE 16.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, BY QUARTERS, CANADA, 1946-1950.

This table shows estimates of quarterly expenditure on housing, other construction and machinery and equipment. Estimates of housing expenditures were prepared by Central Mortgage and Housing Corporation and are based on housing starts, completions and carry-over by quarters evaluated on the basis of a monthly price index.

The quarterly distribution of other construction is calculated by dividing construction into two components. One component consists of highway, bridge, railway, pipe line, water main and sewer construction, where construction activity is concentrated in the spring, summer and autumn months. The other component consists of all other types of construction, where construction activity is of considerable importance during the winter months as well.

The annual value of the first type of construction is determined from the engineering construction content of the sectors involved. This annual value is distributed quarterly on the basis of monthly employment in this type of activity adjusted by hours worked and changing costs of materials used and labour employed. Employment data were obtained from the Dominion Bureau of Statistics monthly publication, *Employment and Payrolls*, and hours worked from the monthly



report, *Man-Hours and Hourly Earnings*, published by the same agency. It was found necessary to adjust employment downwards from figures published for the winter months since the published figure included persons employed in snow clearance. A price index was obtained by combining the price indices of the major materials used in this type of construction as published in the Dominion Bureau of Statistics monthly report, *Prices and Price Indexes*, with average hourly earnings in the industry as published in *Man-Hours and Hourly Earnings*.

Other construction was distributed on quarterly basis in a somewhat similar fashion. Employment and hours worked in the building construction industry were used to obtain the volume distribution. This distribution was adjusted for price change on the basis of a price index established by combining an index of general building material prices with an index of average hourly earnings in the building construction industry. The materials index was given a weight of 58.33 and the wage index a weight of 41.67 to obtain a composite index.

The quarterly distribution of machinery and equipment purchases is based largely on the apparent domestic disappearance of items of machinery and equipment entering into investment. To arrive at the domestically produced portion seven major categories of machinery and equipment were set up: agricultural implements, hardware and tools, machinery, aircraft, railway rolling stock, professional and scientific equipment and ships. A detailed study was made of the 1948 production statistics to determine the appropriate weights for each of these categories. Any incidental types that fell outside these categories were allotted to the category to which they were considered most closely related. The seasonal trend for each category with the exception of ships was determined from an index of factory shipments of such items as published monthly by the Dominion Bureau of Statistics in *Inventories and Shipments by Manufacturing Industries*. These indices were multiplied by the 1948 average quarterly value to obtain value figures. In the case of ships it was found more desirable to establish an index on the basis of employment in the shipbuilding industry adjusted for price change. In this category the domestic disappearance approach at times distorted the trend somewhat, principally because used vessels entering into the export and import statistics made these not comparable with the other production statistics.

Exports and imports of machinery and equipment were determined for the base year 1948 by a careful study of export and import statistics in *Trade of Canada*. The values obtained from this source were increased, in the case of imports to allow for border crossing charges, transportation and dealers' markups. The quarterly trend was determined from a tabulation of the major items in machinery imports and exports prepared by the Dominion Bureau of Statistics. These items included industrial machinery, agricultural implements, aircraft and certain miscellaneous items. This trend was applied to the quarterly average for the base year, 1948.

Since figures on monthly sales of passenger and commercial vehicles were available from the Dominion Bureau of Statistics publication, *Sales of New Motor Vehicles and Motor Vehicle Financing*, the actual sales figures were used. It was estimated that 17 per cent of passenger vehicles would be used for business purposes and these are therefore included in investment.

TABLE 17.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, PRIVATE AND PUBLIC, AND INVESTMENT IN PLANT, EQUIPMENT AND HOUSING PER NATIONAL ACCOUNTS, CANADA, 1926-1951.

This table presents, along with total private and public investment, estimates of investment in plant, equipment and housing under national accounting concepts. The difference between the two concepts is discussed in Appendix A. Figures for the latter series were obtained by evaluating the items shown in Schedule A, below, for each year.

#### SCHEDULE A

#### RECONCILIATION OF PRIVATE AND PUBLIC INVESTMENT (PER THIS STUDY) WITH INVESTMENT IN PLANT, EQUIPMENT AND HOUSING (PER NATIONAL ACCOUNTS)

Item No.	Description
1	Private and Public Investment (per this study)
2	Public Investment in Housing (excluding Federal Government Rental Housing)
3	Investment by Federal, Provincial and Municipal Government Departments (excluding Investment by the Government of the United Kingdom in Wartime Plant Expansion in Canada)
4	Investment in Hospitals Operated by the Federal and Provincial Governments
5	Investment in Municipally Operated Schools
6	Wartime Investment by Federal Government in Merchant Shipping
7	Investment by the Government of the United States in the Canol Project
8	Investment by the Canadian Broadcasting Corporation.
9	Total—Items 2 to 8
10	Investment in Plant, Equipment and Housing (per National Accounts) equals Item 1 less Item 9.

## SECTION 2. INVESTMENT IN PRIMARY INDUSTRIES AND CONSTRUCTION INDUSTRY

All investment data referred to in the text for this section are based on Tables 18 to 23 in Part II.

The employment and national income data found in the tables on page 25 are from the tables on pages 12 and 13 in Section 1.

Estimates of production, imports and exports in the table on page 27 are a summation of those items for the various primary industries. Sources for each such estimate will be found below under the individual industries. This table includes, in addition, estimates of production, exports and imports in the trapping industry. Production estimates are from the Dominion Bureau of Statistics annual publication, *Fur Production of Canada*, and export and import data are from *Trade of Canada*.

Estimates of production in agriculture shown in the table on page 28 are from the Dominion Bureau of Statistics annual publication, *Survey of Production*, for the years 1946 to 1948. Comparable figures for other years were obtained from unpublished data from the same source. Exports and imports were obtained from *Trade of Canada*.

Estimates of farm cash income shown in the table on page 29 are from the Dominion Bureau of Statistics, *Canadian Farm Income*, published annually. The price index of agricultural products is from *Index Numbers of Farm Prices of Agricultural Products*, the price index for commodities and services used by farmers is from *Price Index Numbers of Commodities and Services Used by Farmers*. Both these publications are by the Dominion Bureau of Statistics.

Estimates of production, imports and exports in the fishing industry shown in the table on page 30 refer to the primary operations only. Production figures refer to the value of fish caught and landed as shown in the Dominion Bureau of Statistics annual publication *Fisheries Statistics of Canada*. Import and export data are based on entries in *Trade of Canada*.

The price index of fishery products appearing on page 30 is based on data in *Prices and Price Indexes*.

The production of primary woods operations shown in the table on page 31 is from *Estimates of Forest Production in Canada*, published by the Dominion Bureau of Statistics. Export and import data are based on *Trade of Canada*.

The wholesale price index of lumber and timber on page 31 is based on data in *Prices and Price Indexes*.

Estimates of mining production appearing in the table on page 32 are from *Mineral Production of Canada*, published annually by the Dominion Bureau of Statistics. The import and export estimates are based on *Trade of Canada*.

The price indices of various minerals appearing on page 33 are based on data in *Prices and Price Indexes*.

The construction price indices appearing in the table on page 34 are from *Housing in Canada*, published quarterly by Central Mortgage and Housing Corporation.

TABLE 18.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, FARM CASH INCOME, AND GROSS VALUE OF PRODUCTION, PRIMARY INDUSTRIES, CANADA, 1926-1951.

New investment in the various sectors of the primary industries are from Tables 19, 20, 21 and 22. Estimates of farm cash income are from *Canadian Farm Income*. Figures on the value of fish caught and landed are from *Fisheries Statistics of Canada*. The data on value of mineral production are taken from *Mineral Production of Canada*.

TABLE 19.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AGRICULTURE, CANADA, 1926-1951.

### Construction

Estimates of construction expenditures are based on a figure of the value of building materials purchased by farmers in the year 1940 as reported in the 1941 decennial census. A value of construction figure was reached by adding an allowance for labour costs, the ratio of materials to labour being assumed to be 75-25. Separate estimates on the value of farm residential building were obtained from *Residential Real Estate in Canada*. Expenditures on new farm housing obtained from this source were deducted from the 1940 figure of the value of farm construction to obtain a net figure of farm non-residential construction expenditure in 1940. An index which was considered to reflect the trends in farm construction was obtained by combining an index of retail sales of building materials and an index of net farm income as described in *Public Investment and Capital Formation*, p. 105. This index was applied to the 1940 figure to arrive at a value series of new farm non-residential construction expenditures.

In the 1946 Prairie Census farmers were asked to report separately the value of building materials purchased for the purpose of new construction and of those purchased for repair purposes. Results showed that 58 per cent of the purchases were for new construction and 42 per cent for repair purposes. This repair percentage was run back to 1926 and projected to 1951 on the basis of an index of the ratio of repair to total expenditures in farm residential construction. The ratios thus derived were applied to the total farm construction figure to arrive at an estimate of repair expenditures. New construction expenditures were treated as a residual.

### Machinery and Equipment

The bulk of machinery and equipment used on farms falls into one of two categories, either specialized farm implements such as tractors and binders or motor vehicles.

The value of sales of farm implements was available for the period 1936 to 1948 from material published by the Dominion Bureau of Statistics in *Farm Implement and Equipment Sales*. Appropriate mark-ups were allowed in estimating the amount paid by farmers for



such implements. For the period 1926 to 1935 estimates were based on the available domestic supply method with appropriate allowances being made for freight charges and dealers' commissions. Estimates were made for 1949, 1950 and 1951 by projecting the sales series on the basis of such known data as monthly shipments of farm machinery, prospective farm incomes and probable production schedules of farm implement manufacturers.

Estimates of motor vehicle purchases by farmers were based on a study of the 1931 and 1941 decennial censuses. From this material it was possible to determine the proportion of total commercial and passenger vehicles owned by farmers. The proportion for intercensal years was obtained by straight-line interpolation and the trend extended for the years since the last census. These percentages were applied to the value of sales of new passenger and commercial vehicles, as published by the Dominion Bureau of Statistics in *Motor Vehicle Sales*, to determine the investment by farmers in such items. It was assumed that one-half of the number of passenger vehicles purchased by farmers would be used in their business.

In addition to motor vehicles and items normally considered as farm equipment, certain other items of capital equipment are purchased annually by farmers. Chief among these are small tools and harness. Estimates of such purchases were obtained by the domestic supply method with appropriate mark-ups being made to arrive at a retail value.

The value of repair work done on farm implements was obtained from data collected by the Dominion Bureau of Statistics on the sale of repair parts for farm machinery. Repair expenditures on vehicles were estimated to vary with the total stock of vehicles owned by farmers, and were adjusted to allow for price changes.

TABLE 20.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, FISHING INDUSTRY, CANADA, 1926-1951.

Estimates of investment expenditures in the primary fishing industry were based on the value of capital equipment used in primary fishing operations, as published by the Dominion Bureau of Statistics in *Fisheries Statistics in Canada*.

The value of new investment expenditures was considered to be the addition in each year to the value of capital equipment used, plus an allowance for depreciation. Depreciation rates considered appropriate by the industry were obtained for the following classifications of equipment: trawlers, other vessels, boats and gear. The value of new investment in each year was estimated to be the difference between the depreciated value of equipment in each category in one year and the undepreciated value in the next.

Repair expenditures were estimated at 10 per cent of the value of the total stock of capital in the industry. This percentage was chosen after examination of the accounts of several firms engaged in primary fishing operations.

TABLE 21.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PRIMARY WOODS OPERATIONS, CANADA, 1926-1951.

The technique of estimation used for the period 1926 to 1940 differed from that used for the period 1941 to 1951.

#### 1926 to 1940 Estimates

Estimates of new investment expenditures and of repair and maintenance outlays were available for 1941 from the capital schedule survey by the Dominion Bureau of Statistics. These figures were run back to 1926 on the basis of the value of forest production. The series on the value of forest production as published by the Dominion Bureau of Statistics in *Estimate of Forest Production, Operations in the Woods in Canada* was adjusted by including only one-tenth of the value of wood cut for firewood, ties, posts, fence rails and other purposes. This adjustment was made under the assumption that comparatively less capital equipment was used in producing these products and that a certain part of the equipment would already be included under other industries, particularly under agriculture.

A study of investment figures for the period 1941 to 1951 revealed that the machinery and equipment component of total investment by woods operators constituted a fairly constant percentage of the whole. The average proportion for the period, 51 per cent, was applied to the total new investment figures for all previous years to obtain machinery and equipment estimates. The residual was considered to be new construction expenditures.

The repair series was divided between repair to construction and repair to machinery by allotting 30.5 per cent to construction and the balance to machinery. This was the average ratio for the period 1946 to 1950.

#### 1941 to 1951 Estimates

Estimates for the years 1941 to 1949 were based on the information obtained from the capital schedules, and those for the years 1950 and 1951 on returns in the 1951 survey of investment intentions. Allowances for non-reporting firms and woods operators not covered were made on the basis of the ratio of the adjusted value of forest production to the value of production of reporting operators.

TABLE 22.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PRIMARY MINING INDUSTRIES, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures in the primary mining industries were made by two different techniques, one covering the period from 1926 to 1940 and the other the years from 1941 to 1951.

#### 1926 to 1940 Estimates

Estimates of total plant and equipment expenditures by Canadian metallic and asbestos mines were available, for a series of years running back to 1926, from a questionnaire sent to mining companies in 1940 by the



Dominion Bureau of Statistics. This series was adjusted by adding an allowance for coal mines based on company accounts, and for oil wells based on the domestic supply of oil well machinery. The trend shown by this series was applied to the figure of total new investment in mining in 1941 as obtained by the survey method (see below).

The machinery and equipment component of this new investment series was determined by the domestic supply approach with appropriate mark-ups being allowed for freight charges and dealers' commissions. The residual was considered to be new construction expenditures.

The figure of repair and maintenance expenditures obtained in 1941 was run back to 1926 on the basis of annual values of mineral production as published by the Dominion Bureau of Statistics in *Mineral Production of Canada*. In the period 1946 to 1951 construction repairs amounted on an average to 20 per cent of total repair expenditures. This percentage was applied to repair figures for the years previous to 1946 to obtain an estimate of construction repair values. The residual was taken as repair expenditures for machinery and equipment.

#### 1941 to 1951 Estimates

Estimates for the period 1941 to 1949 were obtained from the capital schedule survey conducted by the Dominion Bureau of Statistics. Allowances were made for companies not reporting, on the basis of the ratio of total mineral production to the mineral production of reporting companies. Figures for the years 1950 and 1951 were obtained from the 1951 survey of investment intentions.

TABLE 23.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, CONSTRUCTION INDUSTRY, CANADA, 1926-1951.

Since construction companies were not included in the capital schedule survey until 1947, for this industry one technique of estimation is used for the period 1926 to 1946 and another for the years from 1947 to 1951.

#### 1926-1946 Estimates

Estimates of new investment and repair and maintenance expenditures in the construction industry are based on the tax records of a sample of construction companies. The basic records used were corporation tax returns submitted annually by the companies involved to the Federal Department of National Revenue. The method of estimation followed the lines described in the notes on the Manufacturing Industries.

In the case of construction companies the material available from the tax returns proved sufficient only to obtain a series on new and repair machinery and equipment expenditures. These machinery and equipment series were converted to an index and the index applied to value figures obtained for 1947 by the survey method. Since the series based on tax returns extended only to 1946 and the figures from survey were only

available from 1947 it was necessary to estimate a 1947 figure comparable to the figures based on the tax returns. This was done in the case of new machinery and equipment by projecting the 1946 figure on the basis of the change in capital expenditures by corporate construction companies as published in the Department of National Revenue's *Taxation Statistics*. In the case of repair to machinery it was assumed that the change from 1946 to 1947 would only be one-half as great as that shown for new machinery.

It was assumed that expenditure on new construction and on repairs to structures would change only slightly in relation to machinery and equipment expenditures. Thus new construction was estimated at 16 per cent of new machinery and repair to structures at 6 per cent of repairs to machinery for the whole period. These percentages are the averages observed for the period 1947 to 1950 from the surveys.

#### 1947 to 1951 Estimates

Estimates for 1947 to 1949 were based on the capital schedule survey of the Dominion Bureau of Statistics and those for 1950 and 1951 on the 1951 surveys of investment intentions. Allowance for non-coverage was made by comparing the above data with material available in the Dominion Bureau of Statistics publications *Report on the Construction Industry (Annual)* and *Labour Force: Quarterly Survey*.

#### Quality of Estimates

The estimates of new investment and repair and maintenance in the primary and construction industries may be divided into two general categories, those based upon a direct survey and those obtained by other methods.

Some indication of the quality of the estimates based upon direct surveys may be obtained in terms of the estimated coverage of these surveys. In the 1950 surveys reported expenditures accounted for 71, 58 and 34 per cent of total estimated expenditures in mining, primary woods operation and the construction industry respectively.

Estimates for years previous to the institution of the capital survey are in most cases subject to a somewhat wider margin of error than the estimates prepared from the survey results. However, the secondary material was used only for establishing trends, in all but the agriculture and fishing industries. The sample firms in the construction industry were chosen with care and should reflect the trends in that industry. Information on trends of investment in the primary mining industries was for the most part furnished by companies in the industry itself. In the case of primary woods operations representatives of the industry hold that investment expenditures correspond quite closely with the value of wood cut, and the trends in this industry should therefore be quite reliable.

The estimates of agricultural investment should be more reliable for the equipment component than for the construction component. Agricultural implements are used almost exclusively in the agricultural industry and the purchases of these implements by farmers can

be measured fairly accurately both in terms of sales and in terms of domestic supply. A spot comparison of the two series revealed that after marking up the supply figures for freight and commission, the difference between the series ranged only from one to four per cent.

Agricultural construction expenditures were based on an index that took into account both the flow of building materials in the sector where the farmer buys and the ability of the farmer to buy.

### SECTION 3. INVESTMENT IN MANUFACTURING

All investment data appearing in this section are based on information shown in Tables 24 to 39 in Part II. Sources of any supplementary data are described below.

The percentage distribution of domestic production in manufacturing and agriculture is based on data appearing in the Dominion Bureau of Statistics annual publication *Survey of Production*. As noted in the footnote to the table it was necessary to make certain adjustments to the series to ensure comparability over the period. These adjustments were based on preliminary revisions to the series prepared by the Dominion Bureau of Statistics.

The employment and national income data appearing on page 38 are from the tables on pages 12 and 13 in Section I.

The export and import data in the table on page 38 are based on information contained in *Trade of Canada*, the percentage figures being based on a special tabulation appearing in the same publication.

Data on domestic production shown in the table on page 39 are from the Dominion Bureau of Statistics publication *The Manufacturing Industries of Canada*, and represent totals of all individual manufacturing industries. Details for each such industry are shown in the appropriate sections. Estimates have been prepared for 1950 based on the indices of industrial production adjusted for price change. Imports and exports shown in this table represent the summation of the same items for all manufacturing groups. These have been compiled by allocating manufactured products listed in *Trade of Canada* to the appropriate manufacturing industry.

Data on establishments, employment and gross and net values of production appearing in the table on page 39 are the summation of such figures for all the manufacturing group. Information is from *The Manufacturing Industries of Canada*. Information on incorporated companies appearing in the table on page 40 is from data contained in the same publication.

The figures on profits appearing in the table on page 40 are a summation of profits shown for each manufacturing group. Estimates of profits for the individual groups are based on information contained in the *Statistical Summary* of the Bank of Canada for May 1951. The wholesale price index is based on data in *Prices and Price Indexes*.

The price indices shown for products of the various individual manufacturing industries are largely based on data contained in *Prices and Price Indexes*. The consumer price indices are components of the Canadian Urban Cost-of-Living Indexes. Some of these indices

The basic material on which the fishing estimates were based is useful for estimating net capital formation. The gross figures will be somewhat less reliable because of the difficulty of estimating depreciation and replacement in any given year. The estimates are believed to reflect fairly closely the general trend, although there is likely to be a greater margin of error as far as the absolute level of investment expenditures is concerned.

have not been published and were furnished by the Dominion Bureau of Statistics. All indices shown are based on 1939, and may therefore differ from published data, which use a different base. The retail index of machinery and equipment appearing on page 62 is the index used in deflating the investment series, its derivation is described on page 216.

TABLE 24.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND GROSS AND NET VALUE OF PRODUCTION, ALL MANUFACTURING INDUSTRIES, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance are obtained by the methods described in the notes to the tables below. Data for gross and net value of production for the period 1926 to 1949 are from the Census of Manufacturing, conducted by the Dominion Bureau of Statistics. Figures for 1950 and 1951 are estimates based on employment, prices and partial production data available for these years.

TABLE 25.—NUMBER OF ESTABLISHMENTS, EMPLOYMENT, VOLUME OF PRODUCTION AND INVESTMENT, ALL MANUFACTURING INDUSTRIES, CANADA, 1926-1951.

Data on the number of establishments and employees are from annual censuses of manufacturing, except the figures for 1949, 1950 and 1951. The 1949 figures are preliminary estimates based on reports of manufacturing firms. The 1950 and 1951 figures are estimates based on monthly employment and production reports compiled by the Dominion Bureau of Statistics. The index of the volume of manufacturing production is the one published by the Dominion Bureau of Statistics in the *Canadian Statistical Review*, issued monthly. The index of the volume of new investment in manufacturing is obtained by deflating the values series, using the methods described on pp. 215-6.

TABLES 26 TO 39.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL MANUFACTURING INDUSTRIES, CANADA, 1926-1951.

Estimates of investment, repair and maintenance in manufacturing industries are compiled by two different methods, one covering the period 1926 to 1945 and the other 1946 to 1951. The sector breakdown of investment, repair and maintenance follows the



Standard Industrial Classification which distinguishes seventeen major groups of manufacturing industries. These are: (1) Food and Beverages; (2) Tobacco and Tobacco Products; (3) Rubber Products; (4) Leather Products; (5) Textile Products; (6) Clothing; (7) Wood Products; (8) Paper Products; (9) Printing, Publishing and Allied Industries; (10) Iron and Steel Products; (11) Transportation Equipment; (12) Non-Ferrous Metal Products; (13) Electrical Apparatus and Supplies; (14) Non-Metallic Mineral Products; (15) Products of Petroleum and Coal; (16) Chemical Products; (17) Miscellaneous.

The industrial distribution of the sample material made it necessary to combine some of the sub-groups for the years preceding 1946. This has been done by combining industrial groups (2), (3) and (4), groups (12) and (13), and groups (14) and (15). Investment estimates are therefore shown for thirteen sub-groups for the period 1926 to 1945 and for seventeen for the years 1946 to 1951. The 1950 figures are preliminary estimates and those for 1951 are based on anticipated capital, repair and maintenance outlay. The data relating to investment, repair and maintenance by miscellaneous manufacturing industries include an allowance for capital items charged to operating expenses by all manufacturing industries.

#### *Estimates for 1926-1945*

These estimates are based on the tax records of 358 companies engaged in manufacturing in 1946 and active during the preceding 20-year period. To ensure comparability throughout the period the records of the same companies have been used irrespective of change in legal status. For example, if one company which had been formed as the result of a merger in 1938 was operating in 1946, the records of this company formed the basis for the years 1939 to 1946 and the records of the predecessor companies would be used for the period 1926 to 1938.<sup>1</sup> The basic records used were corporation tax returns submitted annually by the companies involved to the Federal Department of National Revenue. The 358 companies reported gross sales of \$3,016 million in 1946. This is 42 per cent of total gross sales amounting to \$7,219 million, as reported by all active taxable companies in the manufacturing sector whose tax returns were tabulated by the Department of National Revenue for the year 1946,<sup>2</sup> and 38 per cent of the gross value of production by manufacturing industry amounting to \$8,036 million.<sup>3</sup>

The 358 firms, selected on the basis of the industrial classification mentioned above (except the miscellaneous group), were arranged in size groups, usually three or four within each industrial group, according to the size of the gross sales of the companies in 1945 or 1946.

The corporate universe from which the sample was drawn was similarly grouped, and the ratio of universe sales to sample sales calculated separately for each size group in each of the industrial classifications involved. These ratios were applied as blow-up factors to the sample data on capital and repair and maintenance expenditures for the years 1926 to 1946 inclusive. The resulting absolutes for each industrial group were then converted into a series of index numbers with 1946 as the base year. This index was applied to capital and repair and maintenance expenditures estimated for 1946 by the method described below.

In making an estimate of investment in miscellaneous manufacturing industries and an allowance for capital items charged to operating expenses, it was assumed that the sum of these two quantities would follow the same trend as the total investment of all other manufacturing industries combined. To obtain the data shown in Table 39, an estimate for 1946 for this sub-group was run back on an index reflecting the total of the other manufacturing industries. A special allowance was made for the war years. From the records of the Department of Munitions and Supply it is known that about \$500 million worth of tools and equipment was purchased by private industry, predominantly manufacturing, for the production of defence equipment and supplies, and that companies were given special permission to charge these expenditures specifically to operating expenses.<sup>4</sup> This total was distributed during the six years of World War II following the pattern of all capital expenditures on machinery and equipment by manufacturing industries. Estimates of repair and maintenance expenditures in miscellaneous manufacturing industries were obtained by assuming these would follow the trend of total repair and maintenance expenditures for all other manufacturing industries.

#### *Estimates for 1946-1951*

These estimates are based on returns submitted to the Dominion Bureau of Statistics by manufacturing establishments whose annual production is valued at \$50,000 or more for each of the years 1946 to 1948, and at \$100,000 or more for the years 1949 to 1951. Reporting firms accounted for 77 per cent of total capital expenditures by manufacturing industries in 1950. Information is available for all seventeen manufacturing industry groups. The data for capital and repair and maintenance expenditures for each group are obtained by adjusting the amounts reported to allow for non-reporting establishments and new firms not covered (less those which have gone out of business). A separate allowance is made for capital items charged to current operating expenses by the manufacturing group as a whole.<sup>5</sup>

<sup>1</sup> Data for previously-existing companies could only be used, however, if these were incorporated. Data were not available for unincorporated companies.

<sup>2</sup> In addition to 8,214 fully tabulated companies in the manufacturing sector, there were another 378 active taxable companies whose returns were not complete enough for inclusion in the tabulation by the Department of National Revenue. Total fully tabulated companies represent 96 per cent of the total number of active taxable companies in the manufacturing sector.

<sup>3</sup> The gross value of production figure is from reports submitted by manufacturing establishments to the Dominion Bureau of Statistics and published in *The Manufacturing Industries of Canada, 1946*; Dominion Bureau of Statistics, Ottawa, page 7, Table 1. This figure represents the gross value of output of all manufacturing enterprises including both corporate and non-corporate businesses.

<sup>4</sup> *Encouragement to Industrial Expansion in Canada, Operation of Special Depreciation Provisions, November 10, 1944—March 31, 1949*, Department of Reconstruction and Supply, Ottawa, 1948, p. 13, footnote (2).

<sup>5</sup> For a description of methods of compilation and estimation and appraisal of quality of estimates, see *Private and Public Investment in Canada, Outlook 1951*, Department of Trade and Commerce, Ottawa, 1951, pp. 37 to 40.



### Quality of Estimates

Because of the high coverage of investment by manufacturing companies as reported for the years 1946 to 1951 and the allowance made for investment by non-reporting companies, net new firms not covered, and capital items charged to operating expenses, estimates for the recent period reflect quite closely actual performance by industry. A small margin of error must be allowed because of possible errors in reporting and arbitrariness in allocating items to new investment as distinct from repair and maintenance expenditures. Moreover, the figures for 1951 are based on anticipated expenditures and are therefore preliminary and subject to correction in the light of actual realization.

The estimates for the years 1926 to 1945 are less precise. As stated previously, they are based on a trend of corporate investment only. However, an examination of records showed that manufacturing by corporations comprised about 90 per cent of the gross value of production by manufacturing industry in 1946. Spot checks made for selected manufacturing groups for the earlier period indicated that the importance of the corporate relative to the non-corporate sector in manufacturing industries had changed very little over the 20-year period.

Certain adjustments were necessary in the data obtained from the tax records to ensure comparability with the later data. For example, fiscal year data as used by companies were adjusted to calendar years which formed the basis of reports by industrial establishments to the Dominion Bureau of Statistics. On the whole, tax records of investment items were quite

complete. However, gaps occurred in some cases. For example, where gross capital expenditure figures were not given, the net increase in fixed asset accounts was used with an upward adjustment to allow for possible disposal of assets and depreciation write-offs. Separate figures were not always available for new structures and new machinery and equipment, in which cases the unallocated capital expenditures of the industry were broken down according to the known ratios for other companies in the same industry and size group for that year. This allocation problem was more common in the case of repair and maintenance data. Gaps also occurred in the latter, particularly prior to 1941. In these cases the available data were adjusted upward by using the fixed assets of the relevant companies as indicators of their relative weights in the annual total for each industrial group.

Since the investment data for the period 1926 to 1945 are based on a sample, an attempt was made to compare the estimates for manufacturing as a whole as presented in this report with related data published by the Department of National Revenue.<sup>1</sup> The test was carried out for the years 1944 to 1946 for which statistics published by the Department of National Revenue are available. In order to make as close a comparison as possible, both sets of data had to be adjusted, the National Revenue data by eliminating purchases of existing assets, and the estimates presented in this report by subtracting an allowance for investment by non-corporate manufacturing enterprises. After these adjustments were made, the two sets showed an average difference of about 4 per cent for the years 1944 to 1946.

## SECTION 4. INVESTMENT IN UTILITIES

All investment data referred to in the text for this section are based on Tables 40 to 65 in Part II. Sources of supplementary data appearing in the text are described below.

The employment and national income figures appearing in the tables on page 73 are from the tables on pages 12 and 13 in Section 1.

All data on central electric stations shown in the table on page 78 are from *Central Electric Stations in Canada*, an annual publication of the Dominion Bureau of Statistics. The index of average cost of electricity per kwh. to consumers is based on information contained in the same publication.

All supplementary data shown in connection with steam railways and telegraphs are based on information contained in *Steam Railways*, an annual publication of the Dominion Bureau of Statistics.

The index of street car fares appearing in the table on page 81 is from basic data used in compiling the cost-of-living index. All other supplementary information on electric railways is based on material contained in the Dominion Bureau of Statistics annual publication, *Electric Railways*.

The price index of consumers' telephone service appearing in the table on page 83 is also from basic data used in compiling the cost-of-living index. Other supplementary information on telephones is based on factual material in *Telephone Statistics*, an annual publication of the Dominion Bureau of Statistics.

TABLE 40.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND GROSS REVENUES, SELECTED UTILITIES, CANADA, 1926-1951.

Figures on new investment and repair and maintenance are a summation of these values from Tables 47, 52, 55 and 58. Gross revenues are total revenues received by central electric stations, steam and electric railways and telephones as shown in the various Dominion Bureau of Statistics publications mentioned above.

TABLES 41 TO 46.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PUBLIC UTILITIES, CANADA, 1926-1951.

These tables summarize the detail shown in Tables 47 to 65. In making the basic computations separate

<sup>1</sup> *Taxation Statistics*, Section II; Department of National Revenue, Ottawa (annual).

estimates were prepared for public utilities operated by the Federal, provincial and municipal governments respectively. These estimates have been totalled for presentation in Tables 44 to 46. Investment in public utilities by all three levels of government and by the United States Government in the Canol project make up the total of investment in all publicly owned utilities shown in Table 43.

TABLES 47 TO 51.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, CENTRAL ELECTRIC STATIONS AND GAS-WORKS, CANADA, 1926-1951.

For the period 1926 to 1940 estimates are based on the methods described in detail in *Public Investment and Capital Formation*. In brief, the method used was to extract the capital expenditure items from the annual statements of the more important power companies and commissions, in some cases obtaining necessary figures by direct correspondence with the companies concerned. These figures were then inflated to approximate a total for all central electric stations. The factor used for inflation was obtained by expressing revenues of all central electric stations, as published by the Dominion Bureau of Statistics, as a percentage of revenues of companies studied. Separate computations were made for privately owned systems and for those operated by each level of government.

For the period 1941 to 1951 estimates are based on returns received in the capital expenditure surveys.

For both new investment and total repair and maintenance the estimates made for this group should reflect actual performance fairly well. However, the division between outlays on construction and on machinery and equipment is in some cases arbitrary because of the many border line cases occurring in the industry.

TABLES 52 TO 54.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PRIVATE AND PUBLIC STEAM RAILWAYS AND TELEGRAPHS, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance for the period 1926 to 1940 were based on the methods described in detail in *Public Investment and Capital Formation*. Separate compilations were made for publicly and privately operated steam railways. Estimates for the public sector were prepared by obtaining figures on capital expenditures for the Canadian National Railways directly from the company and adding to these, capital expenditures by other publicly operated companies as determined from selected items in the Dominion Bureau of Statistics annual publication, *Steam Railways*. Estimates of repair and maintenance expenditures were also based on data contained in this report. In estimating investment in privately operated steam railways, capital expenditures of the Canadian Pacific Railway for the years 1926, 1929, 1930, 1933, 1937 and 1941 were obtained by direct correspondence with the company. Estimates for intervening years were prepared on the basis of company annual reports and information available in the Transportation Division of the Dominion

Bureau of Statistics. Capital expenditures for other privately operated railways, and repair and maintenance outlays were estimated from *Steam Railways*.

For the period 1941 to 1951 estimates are based on returns received in the capital expenditures surveys.

For the purposes of the present study new investment and repair and maintenance expenditures for railway hotels have been deducted from steam railway expenditures and are included in the commercial services sector.

The estimates for steam railways reflect closely expenditures actually made since the bulk of the outlays (over 90 per cent) are made by the Canadian National and Canadian Pacific Railways, for which relatively firm figures were available.

TABLES 55 TO 57.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PRIVATE AND PUBLIC ELECTRIC RAILWAYS, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures on electric railways for the period 1926 to 1940 were obtained by the methods described in detail in *Public Investment and Capital Formation*. Separate compilations were made for publicly and privately operated companies. For the public sector the required information was obtained directly from all the more important companies for the years 1926, 1929, 1930, 1933, 1937 and 1941. Complete coverage was obtained by adjusting these data upwards on the basis of the ratio of the revenue of all companies to the revenue of the companies covered. Capital expenditures for all years were available for the Toronto Transportation Commission. The capital expenditures of this company were expressed as a proportion of total capital expenditures of all publicly operated electric railways in the given years. These proportions were used to estimate capital outlays for all publicly operated electric railways in the intervening years.

The same type of procedure was followed for privately operated electric railways since the capital expenditures of the Montreal Tramways and the British Columbia Electric Railway Company were available for all years.

Repair and maintenance expenditure estimates were based on selected items appearing in the Dominion Bureau of Statistics annual publications, *Statistics of Electric Railways of Canada*.

For the period 1941 to 1951 estimates are based on returns received in the capital expenditures surveys.

TABLES 58 TO 60.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PRIVATE AND PUBLIC TELEPHONE COMPANIES, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures for telephones in the period 1926 to 1940 were prepared in accordance with the methods described in *Public Investment and Capital Formation*. This involved the preparation of estimates for the four largest private companies and all companies



operated by provincial governments. Such estimates were based on data appearing in company annual reports, company accounts and the public accounts of provincial governments. The total of revenues of all telephone companies is published annually by the Dominion Bureau of Statistics in *Telephone Statistics*. Comparison of these figures with revenues of companies covered as above provided the basis for estimates of total capital expenditures of all telephone companies.

Estimates of repair and maintenance for the years 1933 to 1941 were obtained from questionnaires circulated annually to all Canadian telephone companies by the Transportation Division of the Dominion Bureau of Statistics. Estimates for the years 1926 to 1932 were obtained by taking the proportion that the value of repair and maintenance work on telephones formed of total operating expenses in 1937, and applying this to figures of operating expenses available for each year from 1926 to 1932.

The present study gives a division of expenditures between construction and machinery and equipment which was not attempted in the previous study. Construction outlays were estimated by applying an index to the 1948 construction figure. The index was established on the basis of change in telephone wire mileage adjusted for estimated replacement costs and price changes. This method yielded figures that were within 10 per cent of the actual figure reported by private telephone companies in the post-war years. The machinery and equipment figures are the differences between total capital outlays and outlays on construction.

In the case of provincial and municipal government telephone systems, the distribution between construction and machinery and equipment was made on the basis of the average percentage distribution for the period 1947 to 1950.

Repair and maintenance expenditures were divided between construction and machinery and equipment on the basis of the percentage distribution shown in the post-war period.

For the period 1941 to 1951 estimates are based on the returns received in the surveys of capital expenditures.

TABLE 61.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, MUNICIPAL WATERWORKS, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures for the years 1933, 1937, 1941 and 1944 were obtained from an examination of the annual statements of a number of the larger cities. The ratio of municipal government capital, repair and maintenance expenditures on waterworks to total municipal government capital, repair and maintenance expenditure was determined for these years. Ratios for the intervening years were obtained by straight-line interpolation. Total expenditures on waterworks were then obtained by applying these ratios to total municipal government capital, repair and maintenance expenditures in each year. Separate series were obtained for new investment and for repair and maintenance.

Commencing in 1949 a survey of all larger municipalities was conducted requesting particulars of their

new investment and repair and maintenance outlays on waterworks. The estimates for the years 1949 to 1951 are based on the results of this survey. The ratios of expenditures on waterworks to total new investment and total repair and maintenance outlays by municipalities was determined for the years 1944 and 1949 and estimated for intervening years by straight-line interpolation. These ratios were then applied to the total expenditure items to obtain outlays on waterworks.

New investment and repair and maintenance expenditures were divided between construction and machinery and equipment on the basis of the ratio shown in the results of the 1949 survey.

TABLES 62 TO 65.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, OTHER PRIVATE AND PUBLIC UTILITIES, CANADA, 1926-1951.

The "Other Public Utility" group is comprised of water transportation, motor carriers, grain elevators, broadcasting, air transportation, warehousing and oil pipe lines. Totals also include an allowance for capital items charged to operating expenses for all utilities. Separate estimates of new investment and repair and maintenance expenditures were prepared for each of these components by methods described below.

#### *Water Transportation*

Estimates of investment and repair and maintenance expenditure in water transportation for the period 1945 to 1951 are based on a direct survey of all large water transportation companies.

For the period prior to 1945 estimates of new equipment expenditures are based primarily on the trend shown by the value of ship deliveries plus the value of imported commercial vessels. It was decided to make no deduction for exports in establishing this trend, since it was impossible to determine how much of the export values represented used vessels. This series was available from 1929 and the trend shown was applied to the 1946 equipment value to obtain estimates for the intervening years. For the years 1926 to 1928 it was necessary to use a series based on the value of ships produced plus the value imported. This trend was applied to the 1929 figure to obtain estimates for these years.

During the war years 1942 to 1945 practically all purchasing of new ships was done by the Federal Government through the Park Steamship Company. Figures on new investment in equipment for these years represent capital expenditures by the Park Steamship Company.

Repair expenditures for machinery and equipment are based on the value of ship repair work done as reported annually to the Dominion Bureau of Statistics. The trend shown by this series was applied to the 1947 figure, which is based on the capital expenditure survey, to obtain estimates for the earlier years.

New construction expenditures are based on the value of new construction work done by government-operated water transportation companies as reported in the companies' annual reports and in the *Public Accounts*. An



allowance was made for outlays by private companies on the basis of the ratio of such expenditures by privately operated companies to those by publicly operated companies, in the post-war period.

Repair to construction is estimated as a constant percentage of repair to machinery. The percentage used was the average shown for the years 1945 to 1950.

Investment expenditures by publicly operated companies were obtained from annual reports of the companies and from the *Public Accounts*. Such expenditures—except in the case of new construction—were subtracted from total outlays to arrive at figures of investment expenditures for private companies.

#### *Motor Carriers*

For the period 1945 to 1951 estimates of new investment and repair and maintenance for this group are based on a direct survey of the major motor carrier companies.

For the years 1942 to 1945 estimates of new machinery and equipment expenditures are based on the change in capital equipment values as shown in the Dominion Bureau of Statistics annual publication, *The Motor Carrier Industry*. This change in capital equipment values was adjusted by an allowance for replacement and the trend shown by this series was applied to the 1947 value of machinery and equipment purchases to yield the required figures.

Estimates for the period 1926 to 1941 are based on the annual changes in bus and truck registrations. These data, along with an allowance for replacement and an adjustment for price change, were used to establish a trend. The trend was applied to the 1947 value of new machinery and equipment purchases to obtain figures for the desired years.

Outlays on repair to equipment were obtained by applying the trend shown by total registration of trucks and buses to the 1947 repair figure. The trend was adjusted to allow for price changes.

New construction expenditures were assumed to be a constant proportion of new machinery and equipment outlays. The proportion shown in the post-war period was used to make estimates for the earlier years. Repairs to structures were similarly assumed to be a constant proportion of expenditures on repairs to machinery.

Publicly operated motor carrier companies were assumed to account for the same proportion of total motor carrier expenditures in the earlier years as in the period 1945 to 1950 when actual figures were available from survey.

#### *Grain Elevators*

Since 1947 grain elevator companies have been canvassed in connection with the annual capital expenditures surveys. Estimates of new investment and repair and maintenance for the period 1947 to 1951 are based on this source.

For the period 1934 to 1946 new construction outlays were estimated by applying a trend established on the basis of the value of construction work performed on grain elevators by construction contractors to the 1947 figure obtained from the survey. Work performed data is from the Dominion Bureau of Statistics annual

publication, *The Construction Industry in Canada*. Machinery and equipment expenditures were assumed to constitute the same proportion of construction outlays as the average observed in the years 1947 to 1950.

Outlays on repair and maintenance to structures for the same period are based on the trend established from the values of alteration and repair work on grain elevators performed by construction contractors and applied to the 1947 figure obtained from the survey. The division between construction and machinery and equipment expenditures was made on the same basis as for new investment.

For the period 1926 to 1933 estimates of new construction investment are based on the change in storage capacity of grain elevators. A trend was established on this basis with appropriate adjustments being made for replacements and price changes. This trend was applied to the calculated 1934 figure. Estimates of repair and maintenance were based on a trend established from total capacity of grain elevators in each year adjusted for price change. The machinery and equipment components were estimated on the same basis as for the 1934 to 1946 period.

#### *Broadcasting*

Estimates of new investment and repair and maintenance expenditures were available for the years 1947 to 1951 from the capital expenditures surveys.

For the years 1926 to 1946 estimates of new investment in privately operated radio stations were based on the change in the number of licensed stations. The trend shown by these data, with adjustment for replacement costs and price changes, was applied to the 1947 investment figure to obtain estimates for the earlier period. The new investment figures thus obtained were divided between construction and machinery and equipment on the basis of the average percentage distribution for the period 1947 to 1950.

Estimates of repair and maintenance expenditures are based on the number of licensed radio stations in each year and on changes in costs. The trend established from these two components was applied to the 1947 figure to obtain estimates for the full period. The division between construction and machinery and equipment was made on the basis of the average percentage distribution in the period 1947 to 1950.

Separate estimates were prepared for the Canadian Broadcasting Corporation based on the *Public Accounts* and annual reports of the Corporation.

#### *Air Transportation*

For the period 1945 to 1951 estimates of new investment and repair and maintenance expenditures were available from the results of direct surveys of all major air transportation companies.

For the period 1937 to 1944 estimates of new machinery and equipment purchases are based on the annual changes in the value of capital equipment of air transportation companies as shown in the Dominion Bureau of Statistics annual publication, *Civil Aviation in Canada*. A trend established on the basis of these values, with an adjustment for replacement costs, was applied to the 1945 investment figures to provide the estimates shown.

For the period 1926 to 1936 it was necessary to base the estimates of new machinery and equipment expenditures on a series of available domestic supply of aircraft. The trend shown by the series was applied to the 1937 figure to provide estimates for the period.

Estimates of repair to machinery and equipment for the years prior to 1945 are based on a trend established from total freight and passenger miles flown and adjusted for price change.

Expenditures on new construction and repairs to structures were assumed to be constant ratios to outlays on new machinery and repairs to machinery respectively, for the years prior to 1945. The ratio used in each case was the average for the period 1945 to 1950.

Investment outlays by Trans-Canada Air Lines were calculated separately, being based on the company's annual reports. This investment comprises the public

sector shown, and was deducted from the calculated total to provide the estimates for the private sector.

#### Warehousing

Estimates of new investment and repair and maintenance expenditures were available from the capital expenditures surveys for the years 1945 to 1951. For the earlier period an appropriate allowance was made for this group on the basis of the trend of business investment.

#### Oil Pipe Lines

New investment expenditures on oil pipe lines have occurred in only a few of the years under review. Estimates for such years have been prepared on the basis of the annual statements of the companies concerned. Included in this group are expenditures by the United States Government on the Canol Project. For further material on this project see Appendix D.

## SECTION 5. INVESTMENT IN TRADE, FINANCE AND COMMERCIAL SERVICES

All investment data referred to in this section are based on information shown in Tables 66 to 69 in Part II.

The employment and national income data appearing in the tables on pages 85 and 86 are from the tables on pages 12 and 13 in Section I.

The value of retail sales appearing in the table on page 87 is from the Dominion Bureau of Statistics publication, *Retail Trade*. The value of wholesale sales shown in the table on page 87 is calculated by applying the index of wholesale sales, as published by the same agency in *Wholesale Trade*, to the value of wholesale sales as determined from the 1941 census. Figures of net profits in retail and wholesale trade appearing in the same tables are from the Bank of Canada's *Statistical Summary*, of May, 1951.

Figures on asset holdings of chartered banks appearing in the table on page 88 are from the Bank of Canada's *Statistical Summary*, 1950 Supplement.

Data on value of work performed by laundries and dry cleaners and on theatre receipts appearing in the table on page 89 are from the Dominion Bureau of Statistics publications, *Laundries, Dry Cleaners and Dyers* and *Motion Picture Theatres, Exhibitors and Distributors*.

TABLE 66.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, TRADE, FINANCE AND COMMERCIAL SERVICES; CANADA, 1926-1951.

This table summarizes the data appearing in Tables 67 to 69.

TABLES 67 TO 69.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, TRADE, FINANCE AND COMMERCIAL SERVICES, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures for the Trade, Finance and Commercial Services groups were available for the years 1947 to 1951 from the capital expenditures surveys. An estimate for the three groups combined was available for 1946 from the survey for that year with partial

detail for individual industries. The 1946 total estimate was divided among the various components by using the 1947 distribution where detail was not available.

Estimates for the period 1926 to 1945 are based on a sample of corporations filing tax returns with the Federal Department of National Revenue in 1946 and being active during the preceding 20-year period. The sampling technique and basic material used were similar to that described in the notes to Section 3, page 223. The sample consisted of 60 corporations engaged in wholesale trade, 60 in retail trade, 200 in finance and 60 in commercial services.

To obtain estimates of new investment outlays, the trend of capital expenditures shown by the sample for each of the four sectors was applied to the 1946 new investment figures to yield estimates for the years 1926 to 1945. It was found that in some cases the series appeared slightly distorted because some large buildings appeared on the books of the companies only in the year of completion. In these cases an adjustment was made by distributing the cost of such buildings over the preceding three years. Separate estimates were prepared for banks, these not being included in the Finance sample. These estimates were based on the net change in value of bank premises, with appropriate upward adjustment to allow for amounts written off.

An estimate of the distribution of new investment between construction and machinery and equipment was obtained by determining the ratio of machinery and equipment expenditures to total new investment for all industries. This ratio was converted to an index using the 1946 to 1951 average ratio as a base. This index was applied to the average 1946 to 1951 ratio in each of the four groups—wholesale trade, retail trade, finance and commercial services—to obtain the machinery and equipment ratio for each group over the whole period. These ratios were applied to the calculated figures of total new investment to obtain the machinery and equipment component. The residual was assumed to represent construction expenditures.

In estimating total repair and maintenance expenditures it was assumed that such expenditures in the trade



finance and commercial services groups would be in the same ratio to repair and maintenance in all other business groups as national income earned in these groups to national income earned in all other business groups. These ratios were determined from available national income statistics and an index was constructed using the 1947 ratio as a base. This index was applied to the observed ratio of trade, finance and commercial service repair expenditures to repair outlays by all other business in 1947. The resulting series was applied to the repair expenditures of all other business to arrive at the estimates shown. Separate compilations were

made for repairs to structures and repairs to machinery and equipment.

These repair outlays were distributed among the three sectors according to the new investment distribution. However, it was assumed that very large changes in the year-to-year distribution of new investment among these sectors would not be reflected in a similar degree of change in repair outlays. In such cases it was necessary to smooth out rapidly changing distributions of new investment to obtain the repair distribution.

## SECTION 6. INVESTMENT IN HOUSING AND INSTITUTIONS

All investment data appearing in this section are based on information shown in Tables 70 to 81 in Part II. Sources of any supplementary data are described below.

Estimates of housing investment appearing in this section and in Tables 70 to 72 exclude supplementary house building costs such as (a) the cost of installed non-movable equipment in large rental projects, such as

elevator, incinerator and ventilator equipment, and (b) payments for professional and related services, such as architectural, financial and legal fees. The value of such items appears in *Residential Real Estate in Canada*, pp. 281-2. These estimates are shown in Table I below, along with figures of total housing investment and total private and public investment, including the supplementary house building costs.

TABLE I.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, AND HOUSING AND SUPPLEMENTARY HOUSE BUILDING COSTS, CANADA, 1926-1951  
(Millions of Dollars)

Year	New Construction Work Carried Out <sup>1</sup>		Supplementary House Building Costs		Gross Residential Capital Formation		Total Private and Public Investment <sup>2</sup>	
	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars
1926.....	212	203	5	5	217	208	922	861
1927.....	217	202	5	5	222	207	1,092	1,029
1928.....	236	214	6	6	242	220	1,302	1,212
1929.....	247	214	6	6	253	220	1,524	1,379
1930.....	204	182	5	5	209	187	1,292	1,208
1931.....	168	161	4	4	172	165	885	874
1932.....	96	100	2	2	98	102	493	513
1933.....	76	83	2	2	78	85	329	354
1934.....	98	103	2	2	100	105	418	446
1935.....	114	121	3	3	117	124	508	540
1936.....	139	143	3	3	142	146	593	615
1937.....	175	168	4	4	179	172	832	794
1938.....	159	156	4	4	163	160	777	762
1939.....	185	180	4	4	189	184	769	750
1940.....	200	183	5	5	205	188	1,053	955
1941.....	244	200	6	5	250	205	1,469	1,204
1942.....	223	169	5	4	228	173	1,547	1,177
1943.....	204	143	4	3	208	146	1,489	1,066
1944.....	237	158	4	3	241	161	1,313	917
1945.....	286	186	6	4	292	192	1,290	888
1946.....	413	250	8	5	421	255	1,711	1,106
1947.....	540	291	11	6	551	297	2,500	1,428
1948.....	668	314	13	6	681	320	3,188	1,581
1949.....	776	347	16	7	792	354	3,518	1,669
1950.....	845	357	18	8	863	365	3,841	1,712
1951.....	907	338	18	7	925	345	4,426	1,811

<sup>1</sup> Including major improvements and alterations.

<sup>2</sup> Including supplementary house building costs.



Estimates of vacant dwellings appearing in the table on page 93 are from *Residential Real Estate in Canada*, page 45. The 1949 total has been revised to include Newfoundland. Other data in this table are from Table 71 in Part II.

The figures on personal disposable income upon which the per cent change figures in the table on page 94 are based are taken from *National Accounts, Income and Expenditure, 1926-1950*.

The data shown in the table on page 95 on government assistance to residential construction are from *Residential Real Estate in Canada*, page 126.

Figures on the number of university students shown in the table on page 97 refer to full-time students of university grade and are taken from the Dominion Bureau of Statistics publication, *Higher Education in Canada*. Numbers of pupils in provincially controlled ordinary and technical day schools shown in the table on page 98 are from *Elementary and Secondary Education in Canada*, published by the same agency.

Estimates of hospital bed capacity were prepared by the Health and Welfare Division of the Dominion Bureau of Statistics.

TABLE 70.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, HOUSING, CANADA, 1926-1951.

Estimates of total public and private new investment and repair and maintenance are based on data contained in *Residential Real Estate in Canada*, page 84. The series appearing in the latter publication excludes estimates for Newfoundland, Yukon and Northwest Territories for all years. For the purposes of presentation here outlays in Yukon and Northwest Territories have been included for all years and estimates for Newfoundland for the years 1949 to 1951. These adjusted estimates were prepared by Central Mortgage and Housing Corporation.

The estimates of new investment in publicly initiated housing are taken from *Residential Real Estate in Canada*, page 294 with the adjustments described above. Estimates of repair and maintenance in this sector were prepared by Central Mortgage and Housing Corporation. New investment and repair and maintenance expenditures for privately initiated housing are the differences between totals shown and outlays in the public sector.

TABLE 71.—DWELLINGS COMPLETED, NET FAMILY FORMATION, NON-FAMILY HOUSEHOLDS OCCUPYING SEPARATE DWELLINGS AND FAMILIES WITHOUT HOMES OF THEIR OWN, CANADA, 1926-1951.

All data in this table are from *Residential Real Estate in Canada*. The information on dwellings completed is from page 267 of that publication, that on net family formation from page 288, that on non-family households occupying separate dwellings from page 289 and that on families without homes of their own from page 205. Some minor revisions based on more recent data have been made. Estimates for the years 1949 to 1951 have been prepared by Central Mortgage and Housing Corporation.

TABLE 72.—NEW RESIDENTIAL CONSTRUCTION AND PERSONAL DISPOSABLE INCOME, CANADA, 1926-1951.

Estimates of new residential construction are obtained from data appearing on page 279 of *Residential Real Estate in Canada* with an allowance being added for Yukon and Northwest Territories. The values of single dwellings are values of single non-farm and single farm dwellings combined. The values of multiple dwellings were obtained by adding the value of multiple dwellings to the value of conversions. These value figures exclude any outlays on major improvements. Estimates of personal disposable income are derived from data appearing in *National Accounts, Income and Expenditure, 1926-1950*.

TABLES 73 TO 75.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL PRIVATE AND PUBLIC INSTITUTIONS, CANADA, 1926-1951.

These tables summarize institutional new investment and repair and maintenance expenditures which appear in detail in Tables 76 to 81.

TABLE 76.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, CHURCHES, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures for the years 1947 to 1951 are based on a direct survey of the three largest religious denominations in Canada, with appropriate allowances being made for denominations not covered.

For the period 1934 to 1946 estimates of new construction expenditures are based on the annual figures of the value of work performed by contractors and sub-contractors on churches and church halls as published by the Dominion Bureau of Statistics in *The Construction Industry in Canada*. The trend shown by these figures was applied to the 1947 value of new investment by churches to provide the estimates shown. The series was run back to 1926 on the basis of the value of contracts awarded for the erection of church buildings, as published monthly by MacLean Building Reports Ltd., Toronto, in the *Building Reporter*. In using the contracts awarded data a six-month lag was introduced to allow for the time difference between the awarding of contracts and the period of construction activity.

Expenditures on repairs to structures were assumed to vary to only one-half the extent of new construction. A trend was established on this basis and applied to the 1947 repairs to structures.

New investment and repair and maintenance outlays for machinery and equipment were assumed to be in the same ratio to expenditures on new and repair construction as in the years for which figures were available from surveys. The estimates were prepared on this basis.

TABLE 77.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, UNIVERSITIES, CANADA, 1926-1951.

For the years 1947 to 1951 all universities and the larger colleges were included in the annual surveys of capital expenditures. Estimates of new investment and repair and maintenance expenditure for this period are based on the survey results.

Estimates for the period 1926 to 1946 are based on the values of plant and equipment of universities as published in *Higher Education in Canada*. Expenditures on new construction were obtained by ascertaining the annual change in value of plant and equipment, adding an estimated depreciation value and applying the trend thus derived, with a one-year lag, to the 1947 value of university new construction. The one-year lag was introduced since it appeared that new projects were included in the reported value of plant and equipment only after they had been completed.

Investment in new machinery and equipment was assumed to be a fixed ratio to outlays on new construction. The ratio used was the average observed for the period 1947 to 1950.

Expenditures on repairs to structures were estimated at 2 per cent of the total value of plant and equipment, this being the proportion observed in 1947.

Outlays on repairs to machinery and equipment were assumed to be a constant ratio to repair to construction expenditures. The ratio used was the average observed over the period 1947 to 1950.

TABLE 78.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, MUNICIPAL SCHOOLS, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures for the years 1947 to 1951 are based on the results of the annual capital expenditures surveys. In connection with these surveys the various provincial governments furnished reports of outlays by municipalities on schools.

For the years 1940 to 1946 outlays on new construction were derived from data available on municipal government expenditures. The ratio of capital expenditures on education to total capital expenditures of municipal governments was established for the years 1939, 1941, 1943 and 1947. For the first three years data were available in *Comparative Statistics of Public Finance*, prepared for the Dominion-Provincial Conference on Reconstruction, Ottawa, 1945. For 1947 the ratio was determined from the results of the capital expenditures survey. Ratios were established for the years 1940, 1942, 1944, 1945 and 1946 by straight-line interpolation. Then these ratios were applied to total municipal new construction expenditures to obtain estimates of new construction outlays for schools.

New construction expenditures for the period 1926 to 1939 are based on expenditures on buildings, grounds and permanent improvements to school buildings in five provinces for which comparable data were available.

These provinces are Quebec, Ontario, Manitoba, Saskatchewan and Alberta. The trend shown by these expenditures was applied to the 1943 new construction figure to provide the required estimates.

Outlays on new machinery and equipment were estimated at 12 per cent of new construction expenditures, this being the observed percentage in the years 1947 to 1950. Repairs to structures were assumed to be 10 per cent of repair outlays by municipal governments for all purposes, the percentage being based on the 1947 ratio. Repairs to machinery were taken as 15 per cent of outlays on construction repair, the average percentage for the period 1947 to 1948.

TABLE 79.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PRIVATE AND PUBLIC HOSPITALS, CANADA, 1926-1951.

This table presents a summary of the information contained in Tables 80 and 81.

TABLE 80.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PRIVATE HOSPITALS, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures for the years 1947 to 1951 are based on the results of the capital expenditures surveys.

Estimates of outlays on new construction for the period 1934 to 1946 are based on the value of work done on hospital buildings by general contractors and sub-contractors as published in *The Construction Industry in Canada*. The trend shown by these figures was applied to the value of new hospital construction in 1947 to provide the required estimates. Values for the years 1926 to 1933 are based on the value of construction contracts awarded for hospital building as published in the *Building Reporter*. The trend of these values was used with a six months' lag and applied to the 1934 estimates of new hospital construction to provide the figures shown.

In estimating outlays on repairs to construction it was assumed that the year-to-year variation would be only one-half as great as in new construction. A trend was established on this basis and applied to the 1947 value of repair and maintenance of structures.

New machinery and equipment outlays and expenditures on repairs to machinery and equipment were estimated as a constant ratio to expenditures on new construction and repair to structures respectively. The ratio used was the average observed for the period 1947 to 1950.

TABLE 81.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PUBLIC HOSPITALS, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures for provincially and municipally operated hospitals for the years 1947 to 1951 are based on the results of the capital expenditures surveys.



Estimates of outlays for hospitals operated by the Federal Government for the years 1941 to 1948 are based on the appropriate items appearing in the *Public Accounts*. The figures for 1949 to 1951 are estimates based on the capital expenditures surveys.

For the years prior to 1947 separate estimates were prepared for provincial and municipal hospitals, using the methods outlined below.

Expenditures on new construction and repairs to structures for provincial hospitals are based on a study of the public accounts of the various provinces. The expenditures on hospital construction and hospital repair as shown in the public accounts were used as trends, which were applied to the 1947 values to obtain the desired estimates. The trend rather than the actual public accounts figures was used since a certain amount of hospital outlays does not go through the public accounts. New and repair machinery and equipment expenditures were estimated on the assumption that these would be in constant ratio to outlays on new construction and repairs to structures.

## SECTION 7. INVESTMENT BY THE FEDERAL GOVERNMENT

All tabular material appearing in this section is based on information contained in Tables 82 to 89 in Part II.

TABLE 82.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, FEDERAL GOVERNMENT ENTERPRISES, INSTITUTIONS, HOUSING AND DEPARTMENTS, CANADA, 1926-1951.

This table shows all types of expenditures made by the Federal Government and its agencies. The government-owned enterprises totals cover only those agencies whose principal source of funds is the sale of goods and services to the public, i.e., the Canadian National Railways, Trans-Canada Air Lines, the National Harbours Board, etc. Separate estimates were prepared for these agencies in computing totals for each investment sector. A description of the methods used will be found below in the notes covering these various sectors.

The expenditures grouped under government-operated institutions and housing comprise (a) outlays for Federally operated hospitals for Veterans and for Indians and Eskimos, and (b) expenditures on Federally operated housing projects such as the wartime housing, the Veterans' rental program and the Armed Forces married-quarters program, as well as departmental staff housing. Federal expenditures on institutions and housing were very small prior to 1941 and are included in the government department totals instead of being shown separately. Investment expenditures on the Veterans' and Indian hospitals for the years 1926 to 1948 are from the *Public Accounts*. The figures for 1949 to 1951 are preliminary estimates. Estimates of Federal outlay on housing for the years 1941 to 1951 were supplied by the Central Mortgage and Housing Corporation. The government department category is the residual of

Estimates of new construction expenditures for municipal hospitals were prepared on the basis of information on capital expenditures for health facilities contained in *Comparative Statistics of Public Finance*. The ratio of such expenditures to municipal government total new construction outlays were determined for the years 1933, 1937, 1939, 1941 and 1943 from the above-mentioned source. A ratio for 1947 was established from the survey results. Ratios for intervening years were obtained by straight-line interpolation. Since the ratios in the pre-war years appeared to be fairly constant, the 1933 ratio was used for years 1926 to 1932. These ratios were applied to total municipal government new construction expenditures to provide the desired estimates. Estimates of repairs to structures were prepared on the assumption that such expenditures were a constant proportion of total municipal government outlays on repair and maintenance. The proportion used was the average for the period 1947 to 1950. New and repair machinery and equipment expenditures were assumed to be a constant ratio to outlays on new and repair construction respectively. The ratio again was the average for the 1947 to 1950 period.

the Federal investment total and includes not only government departments but also the agencies not covered in the government-owned enterprises totals, such as the National Research Council, the Atomic Energy Control Board, etc. The methods of arriving at estimates of investment expenditures of Federal Government departments for the years 1926 to 1951 are described in the notes to Table 85.

TABLE 83.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND EXPENDITURES ON OTHER GOODS AND SERVICES, FEDERAL GOVERNMENT, CANADA, 1926-1951.

Figures for Federal Government expenditures on all goods and services for all years are from the *National Accounts*. The 1951 figures are preliminary estimates. The new investment and the repair and maintenance totals for the years 1926 to 1940 inclusive are from Table 85. The corresponding totals for the years 1941 to 1951 are also from Table 85 but have certain housing and hospital expenditures added in order to make these totals conform to the National Accounts classification from which the totals for all goods and services were derived. The estimates of expenditures on other goods and services were obtained by subtracting the new investment, repair and maintenance totals from the totals for all goods and services.

TABLE 84.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND TOTAL GOVERNMENT EXPENDITURES, FEDERAL GOVERNMENT, CANADA, SELECTED YEARS, 1926-1950.

Figures of total public expenditure through capital and current accounts, the adjustment for inter-depart-



mental transfer payments, and the total public expenditure by governments on current and capital account were supplied by the Bank of Canada. The new investment, repair and maintenance totals are those used in Table 83. Figures for all other government expenditure figures were obtained by subtracting the new investment, repair and maintenance totals from the figures of total expenditure through capital and current accounts.

TABLE 85.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, FEDERAL GOVERNMENT DEPARTMENTS, BY TYPE OF EXPENDITURE, CANADA, 1926-1951.

The totals shown for new investment and repair and maintenance expenditures for the years 1926 to 1938 inclusive are the estimates used in Table 15(a) of *Public Investment and Capital Formation*, with the outlay for Canadian Government Elevators and National Harbours Board deducted, as these expenditures are now included under government-owned enterprises. The further divisions of these new investment and repair and maintenance totals into construction, machinery and equipment and resources development and conservation sub-totals were already available for selected years 1926, 1929, 1930, 1933 and 1937, and the ratios calculated for these years were used to interpolate for the divisions in the intervening years. The corresponding divisions for 1938 to 1940 were obtained by using this same procedure with the 1937 and 1941 (non-war only) ratios, adjusting the resources development and conservation sub-totals and adding in the war expenditures for 1939 and 1940. No changes were made in the non-war expenditures for the years 1939, 1940 and 1941 and the decreases shown in the estimates of total expenditures in this table as compared to the 1945 publication are due to the downward revisions of the direct war expenditures for these three years.

Totals for all years after 1940 exclude expenditures for housing and hospitals, as those now appear under government-operated housing and institutions. Estimates of direct war expenditures for the years 1939 to 1945 are based on records of the Department of Munitions and Supply and refer to calendar years. Estimates of non-war expenditures for the years 1942 to 1945 and of all expenditures for 1946, 1947 and 1948 are based on reclassification of the appropriate items appearing in the annual issues of the *Report of the Auditor-General* and in the *Public Accounts* of the Federal Government for the fiscal years ending March 31 which most nearly correspond to the appropriate calendar years. Any disparity caused by adding calendar-year war expenditures and fiscal-year non-war outlay is not believed to be significant, as construction expenditures which comprise the bulk of the non-war outlay are usually incurred between spring and fall, and thus well within the calendar-year period. The 1949, 1950 and 1951 figures are preliminary.

TABLE 86.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, FEDERAL GOVERNMENT DEPARTMENTS, BY TYPE OF PROJECT, CANADA, SELECTED YEARS, 1926-1948.

TABLE 87.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, FEDERAL GOVERNMENT DEPARTMENTS, BY TYPE OF PROJECT, CANADA, SELECTED YEARS, 1926-1948.

The totals shown in these tables were obtained by reclassifying the appropriate items published in the annual issues of the *Report of the Auditor-General* and the *Public Accounts* and by adding in the direct war expenditures for the appropriate years. The estimates shown in these tables are for the total outlay for the various classes of expenditure and include certain duplications which have been removed from all the other tables. These duplications occur because of (a) the inclusion of expenditures for the purchase and upkeep of construction machinery and equipment in the construction totals as well as in the machinery and equipment totals, (b) the inclusion of construction projects of a resources development or conservation nature in both the construction and resources development totals and (c) the inclusion of machinery and equipment used for resources development or conservation purposes in both the resources development and the machinery and equipment totals. Construction machinery and equipment used for resources development or conservation purposes is included in all three categories.

The duplication described above has been avoided in Tables 82-85 and 88 and 89 by showing all construction projects in the construction total only, whether they are resources development in character or not, and by including all machinery and equipment, regardless of whether it is used for construction and/or resources development, only in the machinery and equipment total. The only exception is certain installed equipment such as plumbing and heating fixtures, ventilation equipment, elevators, etc., which is considered part of the structure and is therefore shown under construction and not as machinery and equipment. Thus, the resources development and conservation totals shown in these tables comprise only those expenditures not already covered in the construction and machinery and equipment classifications.

TABLE 88.—NEW CONSTRUCTION AND REPAIR AND MAINTENANCE, FEDERAL GOVERNMENT DEPARTMENTS, BY TYPE, CANADA, 1926-1951.

The totals for new construction and for repair and maintenance construction for all years are those used in Table 85. The breakdown of these construction totals into building and engineering sub-totals for the selected years 1926, 1929, 1930, 1933 and 1937, was available from the 1945 publication, *Public Investment and Capital Formation*, and the only changes necessary were the removal of the construction expenditures of Canadian Government Elevators and of National Harbours Board. The ratios of the breakdowns for the above years were used to obtain by means of interpolation the sub-totals for the building and engineering

types of construction for the intervening years. The corresponding breakdowns for 1938 to 1940 were arrived at by using this same procedure with the 1937 and 1941 (non-war only) construction ratios and by adding the building and engineering war construction expenditures for the years 1939 and 1940.

Estimates for 1942 to 1948 inclusive are based on a special classification of all the construction expenditures into building or engineering in type, based on data contained in the annual issues of the *Report of the Auditor General* and of the *Public Accounts* for the years concerned. For the war years 1942 to 1945 separate estimates of building and engineering construction expenditures were prepared for the direct war construction program and added to the non-war totals compiled from the publications referred to above. Figures for 1949, 1950 and 1951 are preliminary.

TABLE 89.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, FEDERAL GOVERNMENT DEPARTMENTS, BY PROVINCE, CANADA, SELECTED YEARS, 1926-1948.

The totals used in this table are all from Table 85. The provincial breakdowns shown for 1926, 1929, 1930, 1933, 1937, 1946 and 1948 are based on classifications of the appropriate expenditures by location. It was found possible to allocate some 60 per cent of these expenditures to the various provinces and the total new investment and repair and maintenance expenditures were then distributed among the provinces in the same ratios. As no regional breakdown is available for the direct war expenditures which account for most of the outlay for 1941 and 1944, these years could not be included in this table.

#### *Quality of Estimates*

The evaluation of the quality of the estimates of Federal expenditures for the years 1926 to 1941 given in the 1945 publication, *Public Investment and Capital*

*Formation* (p.121) applies to all the figures used in these tables for the years 1926, 1929, 1930, 1933 and 1937, and to the new investment and the repair and maintenance totals for all other years up to 1939, since these are taken directly from that publication. This evaluation is equally valid for the non-war outlay for the years 1939 to 1941, which have been retained unchanged. The reduced totals now shown for these years are caused by the lower estimates of calendar-year direct war expenditures, which are based on additional information that has become available since the 1945 publication.

All figures for the years 1942 to 1948 are based on reclassifications of the appropriate items as published in the annual issues of the *Report of the Auditor-General* and of the *Public Accounts* of the Dominion of Canada, for the fiscal years 1942-43 to 1948-49. Only the non-war expenditures were classified from these sources for the years 1939 to 1945, as a detailed breakdown of the direct war expenditures for this period on a calendar year basis was compiled from data supplied by the Department of Munitions and Supply (see notes to Table 122.) Estimates of total non-war outlay were made from a reclassification of the expenditures of all Federal departments and agencies for the years 1944, 1946, 1947 and 1948 and for only the major departments for the years 1942, 1943 and 1945. The major departments covered usually account for some 80 per cent of the total ordinary expenditures, and totals shown for war and non-war expenditures for these years are based on a coverage of from 95 to 98 per cent.

The figures shown for 1949, 1950 and 1951 are based on data collected for *Private and Public Investment Outlook* documents issued for these years and on information on realization of investment projects. However, these figures must be regarded as preliminary estimates only and subject to revision when the *Public Accounts* for these years become available and the data reclassified.

## SECTION 8. INVESTMENT BY PROVINCIAL GOVERNMENTS

The detailed information on resources development and conservation is based on a special compilation from the public accounts of the various provinces for the years in question. All other tabular material appearing in this section is from information contained in Tables 90 to 107 in Part II.

Estimates of new investment and repair and maintenance expenditures by provincial governments for the period 1926 to 1946 were based primarily on a reclassification of items contained in the provincial public accounts. In 1947 the Department of Reconstruction and Supply instituted a questionnaire survey of all provincial governments asking for particulars of their accomplished investment expenditures in the year just past, and their anticipated expenditures in the year following. These surveys are currently being continued by the Dominion Bureau of Statistics for the Department of Trade and Commerce. Estimates for the years 1947 to 1951 are based on the results of these surveys.

A detailed statement of the concepts involved and a description of the methods employed for the period 1926 to 1941 are given in *Public Investment and Capital Formation*, pp. 114-117. Estimates covering the years 1942 to 1946 followed the same method. For this period a detailed study of the provincial public accounts was made for the years 1944 and 1946. Totals for the intervening years were estimated. For the years 1942 and 1943 this involved applying the trend of total capital expenditures on highways and public works by each of the provinces. This procedure yielded a 1944 figure differing by only one per cent from the figures based on the survey. For 1945 an estimate was obtained by projecting the 1944 figure on the basis of total provincial government expenditures as published by the Bank of Canada in its *Statistical Supplement*. This method yielded a variation of less than two per cent for 1946.



The instructions accompanying the questionnaire forms circulated among provincial governments conformed in every way to the procedure used in the reclassification of the items in the public accounts. Thus the figures obtained by the survey method commencing in 1947 appear to be comparable with the estimates made for the earlier years.

In order to obtain comparable data in detail for all the years under review, it was found necessary to subject the material used in the earlier publication to further processing and to some re-arrangement. This is explained by reference to the individual tables below.

TABLE 90.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, PROVINCIAL GOVERNMENT ENTERPRISES, INSTITUTIONS AND DEPARTMENTS, CANADA, 1926-1951.

This table brings together all types of investment expenditures made by provincial governments and their agencies. The government-owned enterprises category consists mainly of utilities owned by provincial governments, such as power and telephone systems. Methods of estimation are described in the notes to the utility tables. The government-operated institution category includes only provincial government hospitals. The government department classification consists mainly of expenditures made directly by provincial government departments. These figures are comparable with those shown in *Public Investment and Capital Formation* with the exception of expenditures on provincial hospitals which have been subtracted and included under institutions. In all detailed provincial government tables the figures shown are net of provincial hospital expenditures.

TABLE 91.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND EXPENDITURES ON OTHER GOODS AND SERVICES, ALL PROVINCIAL GOVERNMENTS, CANADA, 1926-1951.

This table sets out the new investment and repair and maintenance figures as shown in Table 93 against figures of expenditures by provincial governments on all goods and services. The latter figures were supplied by the Dominion Bureau of Statistics and are the provincial government component in the National Accounts figure of "Government Expenditures on Goods and Services".

TABLE 92.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND TOTAL GOVERNMENT EXPENDITURES, ALL PROVINCIAL GOVERNMENTS, CANADA, SELECTED YEARS, 1926-1950.

This table presents a comparison of new investment and repair and maintenance expenditures with total public expenditure through capital and current accounts. The latter item is based on the figures of "Total Public Expenditure by Government, Capital and Current Account" appearing in Table 10 of *Comparative Statistics of Public Finance*, published by the Dominion-Provincial Conference on Reconstruction in August, 1945. To this figure was added the value of inter-governmental

transfer payments obtained from the same source. For later years, 1944, 1946, 1948 and 1950 comparable figures have been supplied by the Bank of Canada. For a more detailed explanation see *Public Investment and Capital Formation*, pp. 116 and 117.

Total public expenditures shown in this table differ from the totals shown for expenditures on all goods and services shown in Table 91, principally because the latter excludes all government transfer payments. These government transfer payments would include payments for such purposes as old age pensions and relief.

TABLE 93.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL PROVINCIAL GOVERNMENT DEPARTMENTS, BY TYPE OF EXPENDITURE, CANADA, 1926-1951.

This table breaks down provincial government department expenditures on new investment and on repair and maintenance into the three components: construction, machinery and equipment, and resources development and conservation. It should be noted that in this table all duplications resulting from the overlapping of classifications have been eliminated. Thus construction expenditures are net of any outlays on construction machinery, while resources development and conservation figures are net of any expenditures for items of a construction nature, and of any outlays for machinery.

Estimates included in *Public Investment and Capital Formation* provided the required detail for the years 1926, 1929, 1930, 1933, 1937 and 1941. To obtain the present estimates further details were obtained from the provincial public accounts for the years 1944 and 1946. Estimates for the intervening years were obtained by interpolation of the ratios available for the years for which original computations were made. The questionnaire surveys commenced in 1947 provided the information required for the later years.

TABLE 94.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, ALL PROVINCIAL GOVERNMENT DEPARTMENTS, BY TYPE OF PROJECT, CANADA, SELECTED YEARS, 1926-1948.

The presentation here is similar to that used in *Public Investment and Capital Formation*, the object being to show gross investment outlays for each of the major categories.

The engineering construction and building construction figures differ from those shown in Table 96, since in Table 94 planning and administrative expenses, estimated at 8 per cent of the total, have been deducted and the cost of machinery used in construction work added. The planning and administrative expenses have been added back as a separate item.

The figures for resources development and conservation are also greater than those shown in Table 93, since an estimate of construction work performed and machinery and equipment purchased in connection with resources development programs has been added.

The duplication item is the total value of all such items included in more than one classification, that is, machinery included under construction and resources



development as well as under machinery, and construction included under resources development as well as under construction. By deducting the duplication from new investment a figure on new investment identical to that shown in Table 93 is obtained.

For all years except 1948 totals were obtained from a detailed examination of the provincial public accounts. For 1948 net figures of the value of construction, resources development and conservation and machinery and equipment were reported on questionnaire forms by the provinces. In order to arrive at the gross figures shown in the table, the public accounts were examined to determine the values of machinery and equipment purchased for construction activity or for resources development purposes, and the value of construction work performed in connection with resources development projects. These values were then added to the net figures reported by the provinces.

TABLE 95.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL PROVINCIAL GOVERNMENT DEPARTMENTS, BY TYPE OF PROJECT, CANADA, SELECTED YEARS, 1926-1948.

In this table repair and maintenance values have been added to the new investment figures shown in Table 94. Estimates of repair and maintenance were obtained by the same methods as were employed in making estimates of new investment expenditures (see notes to Table 94).

TABLE 96.—NEW CONSTRUCTION AND REPAIR AND MAINTENANCE, ALL PROVINCIAL GOVERNMENT DEPARTMENTS, BY TYPE, CANADA, 1926-1951.

This table breaks down construction expenditures by provincial governments between building construction and engineering construction. The building category includes expenditures for the erection of structures such as administrative buildings and penal institutions; the engineering classification includes outlays on items such as roads and bridges.

In *Public Investment and Capital Formation* this breakdown was available for the selected years from 1926 to 1941. The detailed study of the public accounts made for 1944 and 1946 provided the required information for these years. Estimates were prepared for intervening years by interpolating the ratios of engineering to total construction available for the selected years. Separate computations were made for new and for repair and maintenance expenditures.

For the years 1947 and 1948 the provincial public accounts were examined to determine the ratio of building to engineering construction. These ratios were then applied to the total construction figures reported by the provinces in the questionnaire survey.

Estimates for 1949, 1950 and 1951 were based on the ratio of construction expenditures by the provincial departments of highways to total construction expenditures as reported by the provinces. While this breakdown was not available for all provinces, the ratios obtained appeared quite consistent with those pertaining to previous years.

TABLE 97.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL PROVINCIAL GOVERNMENT DEPARTMENTS, BY PROVINCE, CANADA, SELECTED YEARS, 1926-1951.

This table gives the provincial detail of the new investment and repair and maintenance items appearing in previous tables. Because of differences caused by rounding of figures from thousands to millions totals in this table do not necessarily coincide with those shown in previous tables.

TABLES 98 TO 107.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, BY TYPE OF PROJECT AND BY PROVINCE, SELECTED YEARS, 1926-1948.

These tables show the provincial detail of the totals shown in Table 95. Because of differences due to rounding of figures, the sum of the provincial tables will not necessarily coincide with the totals shown in Table 95.

In the case of Newfoundland, sufficient information was available only to make estimates of investment commencing in 1941. In order to obtain comparable data for this province two sets of estimates are shown. One series *includes* for the period prior to 1949 investment expenditures for functions assumed by the Federal Government in 1949, covering outlays on such items as harbours, post offices and defence. The other series consists of estimates *excluding* investment expenditures for functions assumed by the Federal Government in 1949. It is the latter series which is included in the totals for all provincial governments.

#### *Quality of Estimates*

The estimates of investment and repair and maintenance expenditures for provincial governments should be quite close for the years 1926, 1929, 1930, 1933, 1937, 1941, 1944 and 1946 since they were based on a detailed study of the provincial public accounts. One difficulty in obtaining investment data by reclassifying items in the public accounts arises when attempting to make a division between new investment and repair and maintenance. Numerous expenditure items which are considered new investment for the purposes of this study are charged to current account in the public accounts. Thus, in some cases it was necessary to make a somewhat arbitrary allocation. However, this should not affect the totals significantly. Since the same approach was used for the whole period the trends of the new investment and the repair and maintenance series will be consistent.

From the small margins of error observed in employing the interpolation technique to obtain estimates for intervening years, it can be assumed that the figures shown for these years reflect fairly accurately the trend of expenditures.

Estimates for the years 1947 to 1951 were prepared in most cases by the provincial government authorities in accordance with a set of instructions which coincided with the concepts used in reclassifying the public accounts. The latter estimates are more accurate for individual provinces, but since the estimates for each province were prepared by different persons, there may not be the same degree of comparability among provinces as in the earlier estimates.

## SECTION 9. INVESTMENT BY MUNICIPAL GOVERNMENTS

All tabular material appearing in this section is based on information contained in Tables 108 to 115 in Part II.

TABLE 108.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, MUNICIPAL GOVERNMENT ENTERPRISES, INSTITUTIONS AND DEPARTMENTS, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures by government-owned enterprises and government-operated institutions are a summary of such outlays for the various investment sectors previously discussed. In preparing estimates for each sector separate compilations were made of outlays by enterprises or institutions operated by each level of government and thus were available for summary presentation in this table.

Expenditures shown for government departments represent a summary of the information contained in Table 111.

TABLE 109.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND EXPENDITURES ON OTHER GOODS AND SERVICES, ALL MUNICIPAL GOVERNMENTS, CANADA, 1926-1951.

New investment and repair and maintenance figures in this table are those shown in Table 111, with expenditures on municipal schools added to assure comparability with the other data used.

Municipal expenditures on all goods and services represent the municipal government component of the National Accounts figures on "Government Expenditures on Goods and Services." Expenditures on other goods and services are obtained by subtracting new investment and repair and maintenance outlays from municipal expenditures on all goods and services.

TABLE 110.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, AND TOTAL GOVERNMENT EXPENDITURES, ALL MUNICIPAL GOVERNMENTS, CANADA, SELECTED YEARS, 1926-1950.

Estimates of public expenditures through and on capital and current account and the figures of adjustments for inter-governmental transfer payments were obtained from *Comparative Statistics of Public Finance*, and from the Bank of Canada. Methods used were the same as those described for provincial governments in the notes to Table 92.

Totals of new investment and repair and maintenance outlays are those used in Table 109 and include such expenditures for municipal schools, to provide comparability with the other data shown in the table.

TABLE 111.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL MUNICIPAL GOVERNMENT DEPARTMENTS, BY TYPE OF EXPENDITURE, CANADA, 1926-1951.

Estimates of new investment and repair and maintenance expenditures by municipal governments were

available for the period 1926 to 1941 in *Public Investment and Capital Formation*. Detailed explanations of the methods used are contained in that publication. The general approach was to make a detailed study of municipal expenditures in selected years based on all available municipal statistics and to estimate the intervening years by an interpolation technique employing the trend shown by certain known quantities.

To obtain figures for the years 1942 to 1946 the same technique was used. A detailed study was made of municipal investment in 1944 following the methods described in *Public Investment and Capital Formation*. The 1944 values were run back to 1942 and forward to 1946 on the basis of the estimated trend of municipal government public construction expenditures. This estimated trend was established on the basis of municipal government expenditures for various purposes as published by the Bank of Canada in its *Statistical Supplement*. The values of each category of expenditures going towards construction were established from the detailed study made for 1944 and the same ratios applied to obtain construction figures for the other years. The application of this trend to the 1944 value figures revealed an error of less than 4 per cent in 1947 in which year the estimates were based on a country-wide survey of municipalities.

In 1947 arrangements were made with the various provincial governments whereby the Federal Government would be supplied with particulars of investment and repair and maintenance expenditures currently being made by the municipalities. To obtain such estimates some provinces conducted a direct survey of all municipalities while others prepared estimates based on such information as debenture approvals and provincial government grants. While all provinces prepared their estimates in accordance with the same set of instructions it appeared that the different methods used gave results which were not strictly comparable between provinces. It was found, in particular, that the machinery and equipment expenditures reported by provinces basing their estimates on debenture issues were much lower relatively than those of provinces basing their estimates on direct survey. In these cases the machinery and equipment expenditures were arbitrarily increased to the relative level shown by the other provinces. It was considered that debentures issued primarily for construction purposes would also include some machinery and equipment. Moreover, this method would probably not take into account certain items of machinery and equipment which normally are charged to current rather than to capital account.

TABLE 112.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS, ALL MUNICIPAL GOVERNMENT DEPARTMENTS, BY TYPE OF PROJECT, CANADA, SELECTED YEARS, 1926-1948.

The estimates of public construction for both engineering and building are based on data contained in Table 114. For the purposes of this table certain adjustments have been made to obtain the total cost



of public works programs. The value of engineering construction shown includes, in addition to the amounts shown in Table 114, the value of machinery and equipment purchased by municipal governments for use in engineering construction. A further adjustment has been made by deducting planning and administrative expenses estimated at 8 per cent of the total cost.

Building construction estimates are the values shown in Table 114, less the cost of planning and administrative expenses.

Planning and administrative expenses for all public construction are shown separately and have been estimated at 8 per cent of total public construction costs. They include such items as lawyers' and architects' fees and central office expenses not charged directly to any given project.

Machinery and equipment purchases are taken from the values shown in Table 111 and include costs of all machinery and equipment.

The duplication item represents the values of machinery and equipment purchases included both under the public construction and under the machinery and equipment categories. The extent of such duplication was determined from studies of expenditures in selected municipalities.

TABLE 113.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL MUNICIPAL GOVERNMENT DEPARTMENTS, BY TYPE OF PROJECT, CANADA, SELECTED YEARS, 1926-1948.

Estimates of repair and maintenance expenditures were prepared in similar fashion to those for new investment as described in the notes to Table 112. The two values were then added together to give the estimates presented in this table.

TABLE 114.—NEW CONSTRUCTION AND REPAIR AND MAINTENANCE, ALL MUNICIPAL GOVERNMENT DEPARTMENTS, BY TYPE, CANADA, 1926-1951.

This table shows further detail of the construction items in Table 111. The construction expenditures are broken down between those for building construction and those for engineering construction.

Building construction includes expenditures for the erection and repair and maintenance of buildings such as city halls, fire halls, community centres and market buildings. Engineering construction includes expenditures on streets, sidewalks, sewers, etc. Expenditures

on schools and hospitals are not included here but are included in the institutional category.

For the selected years 1933, 1937, 1941 and 1944 separate estimates were made of building and engineering construction, based on basic data such as reports from the Provincial Departments of Municipal Affairs and the Quebec Bureau of Statistics and sample studies of selected municipalities. For the years 1946 and 1948 the values of new debentures for five provinces were classified as issues for engineering construction and issues for building construction. The ratios thus obtained were used to break down total construction between building and engineering. Estimates for intervening years were obtained by interpolation of the ratios available for the selected years. For the period prior to 1933 the 1937 ratio was used. Values for the years 1949 to 1951 were based on the ratios obtained for 1948.

TABLE 115.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, ALL MUNICIPAL GOVERNMENT DEPARTMENTS, BY PROVINCE, CANADA, SELECTED YEARS, 1933-1951.

This table presents estimates of new investment and repair and maintenance expenditures of municipal government departments on a provincial basis.

For the period prior to 1947 estimates were made for each province in total only. The breakdown between new investment and repair and maintenance expenditures for this period was based on municipal expenditures data available from the Bank of Canada. The method used was to distribute new investment provincially on the basis of total capital expenditures in each province plus 20 per cent of current expenditures on highways, roads and streets. Repair and maintenance expenditures were distributed on the basis of total current account expenditures on highways, roads and streets. From these two series it was possible to obtain the ratio between new investment and repair and maintenance for each province, which was applied to the figure of total new investment, repair and maintenance expenditures. Details of capital and current account expenditures were available only for the years 1933, 1937, 1939, 1941 and 1943. The 1944 investment figures were broken down on the ratios available for 1943, while the 1946 figures were broken down in the same ratio as in 1947.

Estimates for the years 1947 to 1951 are based on the results of the capital expenditures surveys.

## SECTION 10. INVESTMENT ON A REGIONAL BASIS

All investment data appearing in this section are based on information contained in Tables 116 to 120 in Part II. Estimates of manufacturing investment in constant dollars were obtained by using the deflators described in the notes to Table 7.

Population data are from the Dominion Bureau of Statistics publication, *Population of Canada by Provinces,*

*1921-1950—Estimated as of June 1 for Inter-Censal Years.* Population estimates for Newfoundland for the years prior to 1950 were obtained by straight-line interpolation between the Census years 1921, 1935 and 1945.

Estimates of civilian employment by regions for the years prior to 1950 were prepared by applying the percentage distribution of employment among provinces



as determined by the decennial censuses to total civilian employment in Canada. The 1941 distribution was used to obtain the 1939 estimates. Employment in Newfoundland was estimated as varying with population to the same degree as in the other Maritime Provinces. 1950 figures are from *The Labour Force*, June 3, 1950. The Dominion Bureau of Statistics provided estimates of employment in Manitoba not included in the publication. Labour force data are from the same source.

Data on number of establishments, number of employees and the current dollar value of gross value of production for 1939 are from *The Manufacturing Industries of Canada*, an annual publication of the Dominion Bureau of Statistics. Estimates have been prepared for 1950 by projecting data available for 1948. Establishments were assumed to have the same regional distribution in 1950 as in 1948. Employment was projected on the basis of regional data published monthly by the Dominion Bureau of Statistics in *Employment and Payrolls*. Gross value of production was projected on the regional distribution of manufacturing payrolls available from the same publication.

Gross value of production in constant dollars was obtained by deflating the current dollar value of each component in each province, i.e., salaries and wages, cost of materials, and cost of fuel and power. Salaries and wages were deflated by the index of average hourly earnings as shown in the Dominion Bureau of Statistics report, *Man-Hours and Hourly Earnings*, materials by the wholesale price index of fully and chiefly manufactured goods, and fuel and power by a combined price index of coal and electric power. The residual value was deflated by the average price index of salaries and wages and materials.

Data on new companies commencing operations are from a special survey by the Department of Trade and Commerce (see Release of the Department, November 22, 1950, No. 50/50).

Information on profits and assets of incorporated companies is from *Taxation Statistics*, published by the Department of National Revenue. The 1947 issue provided the data for 1945 and the 1951 issue those for 1949.

Data on personal income by province are from the *National Accounts*. Constant dollar figures were obtained by deflating the current dollar estimates by the cost-of-living index.

TABLES 116 TO 118.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, BY TYPE OF ENTERPRISE AND BY PROVINCE, CANADA, 1948-1951.

Estimates of new investment and repair and maintenance expenditures by province are based on the results of the annual surveys of capital expenditures.

In all investment sectors possible the surveys were conducted on an establishment basis. This made possible a provincial segregation of investment and repair outlays even in the case of firms operating in

more than one province. The basic tabulations in these sectors were done by provinces, thus providing the provincial data presented here.

In some cases such as railways, air and water transportation, outlays may be made on rolling stock, aircraft and ships which are used interprovincially. In these cases provincial distribution was based on data on employment in each such sector in each province.

The provincial estimates are probably subject to a somewhat wider margin of error than are national totals, particularly within individual investment sectors. This is because the possible lack of coverage of a few large projects in the smaller provinces may distort the provincial totals if the inflation technique over- or under-estimates actual outlays made. In compiling national totals these over- or under-estimates are more likely to cancel out.

TABLE 119.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, MANUFACTURING INDUSTRIES, BY PROVINCE, CANADA, 1945-1951.

Estimates of new investment and repair and maintenance expenditures in manufacturing by province are based on the results of the annual capital expenditures surveys.

For the years 1945 and 1946 the surveys of actual outlay asked for only a total figure of repair expenditures with no breakdown between repairs to structures and those to machinery and equipment. However, a breakdown was made in the forecasts of capital expenditure, and the ratios shown in the forecasts were used to make an arbitrary distribution of the actual expenditures.

TABLE 120.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIR AND MAINTENANCE, MANUFACTURING INDUSTRIES, BY CITY, CANADA, 1946-1951.

Estimates presented in this table are also based on the annual capital expenditures surveys.

Special tabulations of the survey results were prepared on a city basis and allowances were made for firms not canvassed or not reporting on the basis of the ratio of total gross value of production in each city to gross value of production of reporting firms.

Estimates for "Greater Cities" include outlays made in suburban areas as well as in the city proper. For "Other Major Cities" only expenditures made in the city proper are included, unless otherwise specified.

In this table no attempt has been made to estimate by city the value of capital items charged to operating expenses. Since this figure represents a relatively arbitrary allowance made for manufacturing as a whole, the further breakdown among cities was not considered justified.

The qualification made regarding the reliability of provincial investment estimates applies to an even greater degree in the city estimates.

## APPENDIX C. UNEMPLOYMENT RELIEF WORKS AND RELATED PROJECTS

The data referred to in the text of this Appendix as they relate to investment are based on Table 121 in Part II. Related data are from the sources referred to below. Sources of other data mentioned in the text are referred to in footnotes in Appendix C.

TABLE 121.—EXPENDITURES ON RELIEF WORKS AND TOTAL RELIEF, ALL GOVERNMENTS, CANADA, 1930-1940.

Relief works include the Trans-Canada Highway, Federal, provincial and municipal relief works, work projects in relief camps, and farm and forestry improvement projects. Federal relief works figures include expenditures made under the Public Works Construction Acts.

Federal expenditures on relief works are estimated from the annual *Public Accounts*, and include Federal expenditures made under the Relief Acts and the two Public Works Construction Acts, on Federal, provincial and municipal relief works projects. Provincial relief works expenditures for 1930 to 1935 are from the *Report of The Royal Commission on Dominion-Provincial Relations*, May 1940, Book III; and for 1936 to 1940 are estimated from *Comparative Statistics of Public Finance 1936-1940*, published by the Dominion-Provincial Conference of January, 1941. Provincial expenditures include contributions to municipal projects. All other series for 1930 to 1935 were obtained from the *Report of the Royal Commission on Dominion-Provincial Relations*, Book III; and for 1936 to 1940 from *Comparative Statistics of Public Finance 1936-1940*.

## APPENDIX D. INVESTMENT FOR DIRECT WAR PURPOSES DURING WORLD WAR II

Investment data referred to in the text for this Appendix come from Tables 122 and 123 in Part II. All estimates in so far as they do not represent previously described estimates are based on records of the Department of Munitions and Supply and the *Annual Reports* of the Auditor General.

TABLE 122.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS FOR DIRECT WAR PURPOSES, BY SPONSORING AUTHORITY, CANADA, 1939-1945.

The totals shown for the Federal Government comprise expenditures for defence construction and for the Government-financed industrial plant expansion program, and certain lesser expenditures made directly by the Department of Munitions and Supply to further the war effort, i.e., on cutting tools, gauges and other miscellaneous equipment necessary for war production. Allowances for planning and administrative expenses have been added to both the defence construction and the industrial plant expansion program totals—8 per cent to the former, except for the wartime housing portion, and 2 per cent to the latter.

The United States Government expenditures cover outlay made on that portion of the Alaska Highway that traverses Canadian territory and on a number of airstrips built in various parts of Canada but financed in the first instance by the American Government.

The private and public utilities totals are made up of expenditures of the Park Steamship Company on merchant shipping, of the Aluminum Company of Canada on the Shipshaw power development project, of Defence Communications, Limited and on the Canol Pipe Line project. The last project was financed by the United States Government and is included in the United States Government defence construction totals in Table 123.

Totals shown under the heading of private business cover *only* those expenditures by private business,

primarily manufacturing concerns, that were encouraged by the special Federal Government fiscal measures described in Appendix D.

The \$75 million invested by the Aluminum Company of Canada in the Shipshaw power development project under special depreciation agreement is shown under private and public utilities.

TABLE 123.—NEW INVESTMENT IN DURABLE PHYSICAL ASSETS FOR DIRECT WAR PURPOSES, BY TYPE OF PROJECT, CANADA, 1939-1945.

The Canadian Government defence construction totals cover expenditure on defence works and outlay for the wartime housing program. These totals include defence construction work carried out for the United Kingdom but subsequently taken over by the Canadian Government. The totals shown for the United States Government comprise outlay for that portion of the Alaska Highway that runs through Canadian territory, a number of airstrips built in various parts of Canada by the American Government and the Canol Pipe Line.

The government-financed plant expansion figures cover the industrial plant expansion program financed by the Federal Government and the associated expenditures described in the notes to Table 122. Of the \$753·6 million estimated to have been expended on this type of project, \$519·3 million was for machinery and equipment and \$234·3 million for construction.

The privately financed plant expansion totals comprise the \$514 million expended under the special depreciation agreements with the Federal Government and the \$500 million the same authority permitted to be written off for taxation purposes as covering small items of equipment that were used up rapidly in the course of war production.

Expenditures shown under Canadian Government merchant shipping consist solely of the value of ships acquired by the Park Steamship Company.



## APPENDIX C. UNEMPLOYMENT RELIEF WORKS AND RELATED PROJECTS

### Division of Responsibilities

Works projects have been used in the relief of unemployment at various times throughout Canadian history. The records of the Hudson's Bay Company mention one such project in the Red River District in 1829. In 1868 the Federal Government put unemployed settlers to work on the "Dawson Trail" between the Red River Settlement and Lake of the Woods. In 1919, introducing the Bill which later became the Canada Highways Act,<sup>1</sup> the then Minister of Railways and Canals noted the employment-giving nature of the project in urging speedy passage of the Bill.<sup>2</sup> Both relief works undertaken as such, and the timing of public works to help relieve unemployment are therefore familiar principles. It was not until after World War I, however, that such projects involved large expenditures, and not until the depression of the thirties that such expenditures became a substantial portion of Federal or provincial government outlays.

Although the Canadian constitution does not specifically mention unemployment relief,<sup>3</sup> the Federal Government has maintained that this subject in fact falls into the category of local matters and should be dealt with by local, i.e., municipal or provincial, authorities.<sup>4</sup> Federal Government participation in unemployment relief measures has therefore had the explicit aim of supplementing local efforts. For example, the Order in Council which introduced the first Federal unemployment relief program after World War I contained the statement:

"Unemployment relief always has been, and must necessarily always continue to be, primarily a municipal responsibility, and in the second instance the responsibility of the Province."<sup>5</sup>

Federal Government unemployment relief measures during the twenties and thirties continued to be premised on this view.<sup>6</sup>

Provincial governments have likewise regarded their role in unemployment relief problems as chiefly a supplementary one, claiming that primary responsibility rests upon the municipalities. While there exists some question about the appropriate division of responsibilities in this field, unemployment relief has in fact been treated as

primarily a municipal responsibility. In practice, however, both Federal and provincial authorities have usually found it necessary to share the burden in various ways. At the same time, the emphasis on primary municipal responsibility has had an important influence on the form of and administrative arrangements for joint action taken in the field.

### Relief Works During the Twenties

Unemployment relief during the twenties was on a relatively small scale in contrast to the outlays made during the following decade,<sup>7</sup> yet many of the principles governing the work of the thirties were to be found in the earlier period.

In 1921 the Federal Government was empowered to reimburse municipal authorities for one-third of the cost of emergency disbursements for unemployment relief.<sup>8</sup> Provincial contribution was suggested but not required until October of that year, when relief works were also introduced. Federal financial aid was then provided for in the case of work undertaken by the municipalities during the winter season to relieve unemployment.<sup>9</sup> During the twenties the Federal Government did not itself participate directly in relief works projects.

A feature of the twenties not carried over into the next decade was the concept of the "excess cost" of relief works programs. Under the above provisions the Federal Government offered to pay one-third of the difference between the actual cost of performing the work and an agreed-on estimate of what it would cost if the project were undertaken during the normal working season. The municipality bore the entire "normal" cost, plus its share of the "excess" cost.<sup>10</sup>

A unifying feature of the practice in the two decades was the emphasis on relief works. Throughout the twenties and in the first years of the great depression, all three levels of administration were agreed that wherever possible relief works, i.e., useful projects which would provide employment, were preferable to direct relief. For this reason the Unemployment Relief Act of 1930 emphasized the works aspect of the program.

<sup>1</sup> 9-10 George V, Chap. 54.

<sup>2</sup> *House of Commons Debates*, Session 1919, March 21, 1919, pp. 730-731, and June 23, 1919, p. 3900.

<sup>3</sup> In its widest sense, "unemployment relief" includes direct relief or material aid, agricultural assistance and land settlement, youth training projects, and certain types of public works. The term "relief works" is used in the following pages to denote public works undertaken under relief legislation.

<sup>4</sup> Although the Canadian constitution does not specifically mention unemployment relief, it does specify that among the exclusive powers of provincial legislatures is "the establishment, maintenance and management of hospitals, charities, eleemosynary institutions in and for the province." Further, long before the British North America Act of 1867 was passed it had been customary practice in Great Britain to have local authorities administer relief under the poor laws and this practice was followed in other British countries.

<sup>5</sup> P.C. 3831, October 7, 1921. Federal co-operation on unemployment relief during the twenties was authorized by Orders in Council.

<sup>6</sup> For example, the preamble to the Unemployment Relief Act of 1930 began: "Whereas unemployment, which is primarily a provincial and municipal responsibility, has become so general throughout Canada as to constitute a matter of national concern, and whereas it is desirable that assistance should be rendered by the Government of Canada towards the relief of such unemployment . . ." The Unemployment Relief Act, 1930; 21 George V, Chap. 1.

<sup>7</sup> Relief expenditures by the Federal Government for the years 1920 to 1930 inclusive totalled \$1,849,020, including administrative expenses (*House of Commons Debates*, Special Session, September 12, 1930, p. 93). By contrast, the 1930 Unemployment Relief Act alone authorized an expenditure of \$20 million.

<sup>8</sup> P.C. 139, January 24, 1921. An amount of \$500,000 was appropriated under this Order in Council.

<sup>9</sup> P.C. 3831, October 7, 1921.

<sup>10</sup> In 1922 the Federal share of the excess cost was raised to one-half, the provincial share remained one-third, and the municipal portion therefore fell to one-sixth. P.C. 191, January 25, 1922.



## Relief Works During the Thirties

The onset of the depression in 1930 caused all three levels of government to expand relief activities. The principle of local responsibility was, however, retained. The Canadian Government indicated, during debate preceding passage of the 1930 Unemployment Relief Act, that it "will not be engaging in that form of relief or business which primarily it is the duty of the provinces or municipalities to undertake; but to assist them in the discharge of that duty this grant is being asked for".<sup>1</sup>

This Act was the first of a series of annual legislation with similar aims:

The Unemployment Relief Act, 1930; 21 George V, Chap. 1, September 22, 1930.

The Unemployment and Farm Relief Act, 1931; 21-22 George V, Chap. 58, August 3, 1931; and The Unemployment and Farm Relief Continuance Act, 1932; 22-23 George V, Chap. 13, April 4, 1932.

The Relief Act, 1932; 22-23 George V, Chap. 36, May 13, 1932.

The Relief Act, 1933; 23-24 George V, Chap. 18, March 30, 1933.

The Relief Act, 1934; 24-25 George V, Chap. 15, April 20, 1934.

The Relief Act, 1935; 25-26 George V, Chap. 13, April 4, 1935.

The Unemployment Relief and Assistance Act, 1936; 1 Edward VIII, Chap. 15, May 7, 1936; and An Act to amend the Unemployment Relief and Assistance Act, 1936; 1 Edward VIII, Chap. 46, June 23, 1936.

The Unemployment and Agricultural Assistance Act, 1937; 1 George VI, Chap. 44, April 10, 1937.

The Unemployment and Agricultural Assistance Act, 1938; 2 George VI, Chap. 25, May 25, 1938.

The Unemployment and Agricultural Assistance Act, 1939; 3 George VI, Chap. 26, May 2, 1939.

The Unemployment and Agricultural Assistance Act, 1940; 4 George VI, Chap. 23, July 12, 1940.

Also relevant to the relief of unemployment were:

The Public Works Construction Act, 1934; 24-25 George V, Chap. 59, July 3, 1934.

The Supplementary Public Works Construction Act, 1935; 25-26 George V, Chap. 34, July 13, 1935.

The Relief Acts were administered by the Federal Minister of Labour, assisted in the early thirties by an advisory committee. Administration was handled by an Unemployment Relief Branch within the Department of Labour. Agreements with the provinces, allocation of funds, etc., were made by Order in Council.

Under these agreements the Federal Government contributed 50 per cent of the cost of provincial works expenditures and 25 per cent of the cost of municipal

undertakings. In 1931 the Federal share of municipal relief works was raised to 50 per cent in the four western provinces, and the Federal contribution to provincial highway works reduced in four of the eastern provinces. Otherwise the terms of all provincial agreements were similar.

During the early thirties proposed expenditures of provincial governments on relief works were divided almost equally between provincial and municipal projects. The total expenditures planned by all governments on provincial works, however, was less than half that planned for municipal works.<sup>2</sup> Although most of the provincial program was carried out, a number of municipalities were financially unable to complete their projects. As a result, the total program was less, and the municipal portion smaller, than originally intended (see Table 121 in Part II).

Relief works undertaken by the provinces consisted chiefly of highway projects, including portions of a contemplated Trans-Canada highway. In addition to highways, provincial projects included a small amount of work on dams, reservoirs, bridges, and public buildings. Like provincial undertakings, municipal projects were designed to provide maximum employment for unskilled labour. As a consequence projects selected concentrated on sewer installations, road grading, and similar civic improvements, with construction of public buildings usually kept to a minimum.

The Federal Government also undertook a comparatively small public works program of its own under these early Unemployment Relief Acts. Through Federal departments expenditures were made on public buildings, agricultural stations, military installations, grade crossings and harbour and river installations. Federal outlay on this part of the relief program totalled less than six million dollars for the years 1930 and 1931. Under the 1930 legislation an agreement was made with the Canadian Pacific Railway and the Canadian National Railway whereby these companies would be paid 5 per cent interest on expenditures of approximately \$25 million over and above their normal works expenditures, provided these additional projects were begun and completed within a specified time.<sup>3</sup>

The year 1932 saw almost complete abandonment of the 1930-31 approach to unemployment relief. By the autumn of 1931 many municipalities were financially unable to complete their works programs, despite the fact that half the cost was borne by the senior governments, and began a general switch to direct relief. As municipalities came to rely to an increasing extent on the provincial governments, these in turn began to feel the strain. Provincial relief works themselves had been financed chiefly by borrowing, but the contraction of the capital market late in 1931 made this practice increasingly difficult. As a result, no new works projects were begun in 1932 and, except for some uncompleted projects, Federal financial assistance to provincial and municipal relief works was discontinued at the request of the provincial governments. Payments on relief works projects were resumed the following year, but from

<sup>1</sup> *House of Commons Debates*, Special Session, September 10, 1930, p. 67. Cf. also preamble to the Act quoted above, p. 1, n. 5.

<sup>2</sup> *Report of the Dominion Director of Unemployment Relief*, Ottawa, March 1, 1932, Appendix E.

<sup>3</sup> P.C. 2292, September 30, 1930.

1933 to 1936 the Federal Government's expenditures on relief works were made chiefly on its own projects. In 1937 projects jointly financed with provincial governments again became important.

In 1932 the Federal Government took over the cost in the four western provinces of looking after single homeless men, who were cared for in relief camps administered by the provincial governments. The Federal departments of National Defence and Interior also operated camps at various points throughout the country. Conditions of work in the camps varied. In some provinces work and wages were on the same basis as for ordinary public works. Elsewhere the men received only their keep and a small allowance. In Ontario and British Columbia work was on a full-time basis, although the camps did not take care of all eligible unemployed; other western provinces used a rotation system. The camps occasioned a change in the Federal Government's own works program, with increased emphasis on projects adapted to the utilization of unskilled labour. Examples are highway construction, forestry and work on airfields, military installations and historic sites. Projects carried out in the relief camps made up the bulk of the Federal relief works program in 1932 and 1933, apart from subsidies to the provinces.

The curtailment of municipal relief works programs late in 1931 had in effect left this field to the provincial and Federal governments. During 1932 and 1933 these, too, reduced their works programs with the result that the overall emphasis was on either relief camps or direct relief during this period (see Table 121 in Part II).

Federal subsidies to provincial relief works were resumed on a smaller scale in 1933 but became more important in the latter part of the thirties. Relief works, however, played a secondary role to direct relief in provincial activities until 1937. In 1934, relief works received new impetus with the inauguration of a program initiated and carried out by the Federal Government itself. Based largely on the Public Works Construction Act of 1934, Federal expenditures on relief works more than doubled from 1933 to 1934. Projects designed to make maximum use of unskilled labour gave way to a wider variety of undertakings, the majority of which involved building or engineering construction. Under the 1934 Act \$39.7 million was allocated to various Federal departments for work on specified projects, using prevailing wage rates and otherwise following the employment conditions obtaining for ordinary public works. The projects were such as would normally have been carried out at some time in the future by these departments. Examples were public buildings, military buildings, roads in national parks, and work on rivers, canals and harbours.

The Supplementary Public Works Construction Act of 1935 provided for continuation of these projects and allotted an additional \$17.9 million for public works. A new and significant feature was the earmarking of one million dollars for geological surveys, thus linking unemployment relief projects with resources development.

Expenditure on relief works under the Construction Acts totalled \$8.7 million in 1934 and \$29.6 million in 1935.<sup>1</sup> These outlays made up approximately 40 and 61 per cent, respectively, of total Federal relief works expenditures in those years.

In 1936 the relief camps were closed. Provision was made for completion of certain specified projects begun under the Construction Acts, but the use of special legislation for relief works was also discontinued. For the remainder of the decade Federal works undertaken to relieve unemployment were ordinary public works, and the Relief Acts of the period allocated funds for this purpose to certain of the Federal departments. Some care was exercised in choosing the projects so assisted, emphasis being placed on those related to development of natural resources and the encouragement of tourist trade.

In 1937 provincial expenditures on relief works expanded from \$16.1 million to \$19.9 million. This resulted in part from the desire to eliminate direct relief. In New Brunswick, for example, the Federal grant-in-aid for direct relief was replaced by a comparable grant toward carrying out relief works. Nova Scotia made a similar change-over the following year. From 1937 to 1938 provincial expenditures on relief works almost doubled. In 1938 a series of special agreements was negotiated by Federal and provincial authorities providing for Federal participation in the development of tourist highways and roads in mining districts. Under these agreements the Federal Government was to contribute to the construction cost of tourist highways, up to a specified maximum for each province. The Federal contribution was set at 60 per cent in British Columbia, approximately 30 per cent in Manitoba, 10 per cent in Saskatchewan, and 50 per cent in other provinces. In the case of roads into mining areas, the Federal share was to be two-thirds of construction costs. For these roads projects, which were continued in succeeding years with some modifications, the Federal Government disbursed \$1.6 million in 1938, \$2.4 million in 1939, and a smaller amount in 1940.<sup>2</sup>

It had been an inevitable result of insistence on local initiative and responsibility that works projects in the early part of the depression had been chosen so as to make maximum use of unskilled labour. Municipalities with limited financial resources had an obvious incentive to make their expenditures take care of as many people as possible. Provincial governments were usually also in favour of this type of project, since relief costs devolved first upon them wherever the municipalities were unable to carry the load. The Federal Government approved, and indeed the 1931 agreements required that at least 40 per cent of the Federal Government's contribution be spent on wage payments to on-site labour.<sup>3</sup>

By the middle of the decade, however, the emphasis was changing from the provision of work for those receiving relief to the timing of otherwise necessary works projects so as to minimize the need for relief.

<sup>1</sup> Report of the Auditor General for the year ended March 31, 1936, Vol. I, pp. xix-xxi.

<sup>2</sup> Report of the Dominion Commissioner of Unemployment Relief, Ottawa, March 31, 1939, pp. 12 and 19; March 31, 1940, pp. 7, 14-15; March 31, 1941, pp. 11 and 13.

<sup>3</sup> Report of Dominion Director of Unemployment Relief, Ottawa, March 1, 1932, Appendix C, p. 6.



The National Employment Commission appointed in 1936 made the distinction clear in its final report:

"A policy of increasing public expenditures for works during a depression should not be confused with the provision of work for those drawing Aid . . . . The mere provision of works of this second type, if not accompanied by an *expansion* of public expenditures, would not effect any improvement in the national income; it would merely distribute it in a different way. It would be a program of *relief* rather than of *recovery*".<sup>1</sup>

The change was reflected in the legislation used. Some public projects were still carried out under relief legislation. Provincial highway projects, Trans-Canada Highway work and municipal works were assisted in this way. However, much of the expenditure, although designed to relieve unemployment, could also be classified as "normal" public works undertakings or development projects. Federal contributions to tourist and mining area road work, for example, although made under Relief Acts, were actually made through the Federal Department of Mines and Resources. Similarly, expenditures under the Construction Acts were made through Federal departments on their own public works projects, but were timed to supplement unemployment relief measures.

Contrast of the preambles to the 1935 and 1936 Relief Acts illustrates the trend toward stimulation of the economy in preference to purely relief measures. The 1935 Act began:

"Whereas the Provinces may require further assistance in carrying out necessary relief measures and in meeting financial conditions as the same may arise; and whereas in such event it is in the national interest that Parliament should support and supplement the relief measures of the Provinces and grant them financial assistance. . . . ; and whereas it is necessary to make provision for further expenditure for relief purposes under the Department of National Defence and the Department of the Interior. . . ."

But the 1936 Act opened with the words:

"Whereas it is in the national interest that Canada should co-operate with its provinces and with certain organizations and individuals in their endeavours to expand industrial employment, to foster agricultural settlement and re-settlement, to conserve and develop natural resources and to construct and to assist in the construction of public works, for the purposes, among other things, of further accelerating the recovery of trade, industry and employment and thereby lessening the present governmental burdens consequent upon unemployment. . . ."

### The Post-War Situation

With the outbreak of World War II unemployment in Canada disappeared fairly quickly, and with it the reason to continue with relief works and related projects. In the post-war years, after a period of

transition from a war to a civilian economy, which was achieved fairly quickly, employment continued at high levels and except for special arrangements in individual localities no public investment and development projects to stimulate employment were required.<sup>2</sup>

### Economic Impact of Relief Works

During the period 1930 to 1940, when relief works were undertaken by all three levels of government on a fairly wide scale, a total of \$461 million can be identified as direct relief works projects.<sup>3</sup> While expenditure data on relief works for earlier periods in Canada's history are scanty, what evidence is available suggests that expenditures during the thirties exceeded by far any corresponding outlay made for this purpose during the preceding 63 years since Confederation.

The importance that was attached to relief works in the thirties is indicated by the fact that one out of every three dollars spent by all governments to provide relief for the jobless was devoted to employment-giving construction projects (see below). The Federal and provincial governments placed greater emphasis on relief works than municipal authorities, which devoted a substantially greater proportion of their expenditures to assistance in cash or kind to the unemployed rather than to providing for employment-giving projects. This is in part explained by the greater pressure that was exerted on municipalities to do something for the needy within their areas. Relief assistance could be spread among a much greater number than outlay on relief works. As noted above, the limited financial resources of municipal authorities made it difficult for them to undertake more than comparatively small public works programs which in effect gave help to only a portion of those needing assistance.

Government	Total: 1930-1940		
	Relief Works \$ Mill.	Total Relief \$ Mill.	Relief Works as Per cent of Total Relief
Federal . . . . .	242	563	43
Provincial . . . . .	186	529	35
Municipal . . . . .	33	199	16
All . . . . .	461	1,291	36

The appraisal included in Sections 7 to 9 of new investment made by Federal, provincial and municipal governments in the thirties brings out the substantial fluctuations that took place in that period. The important point is that outlay on relief works, although sizable at times, was not large enough to compensate for declining investment expenditures of the developmental type carried on in more prosperous periods. In 1935, for example, when all three levels of government spent some \$68 million on relief works, or 36 per cent

<sup>1</sup> *Final Report of the National Employment Commission*, Ottawa, January 26, 1938, p. 34.

<sup>2</sup> For a summary of Federal Government's attitude towards investment in the post-war period, see *Investment and Inflation*, pp. 174 ff.

<sup>3</sup> Projects include the Trans-Canada Highway, direct Federal, provincial and municipal relief works, work projects in relief camps operated by the Federal Government, and works involving farm and forestry improvement.



of total new investment, repair and maintenance expenditures by government departments, the total investment outlay by governments was about one-third smaller than at the peak of 1930, when the relief works contribution was only \$10 million, or 3 per cent of the total (see below).

Year	Relief Works—All Governments	
	Amount \$ Mill.	Per cent of New Investment, Repair and Maintenance <sup>1</sup>
1930.....	10	3
1931.....	64	25
1932.....	43	23
1933.....	16	12
1934.....	50	30
1935.....	68	36
1936.....	56	32
1937.....	42	17
1938.....	53	22
1939.....	49	21
1940.....	10	3
Total.....	461	19

<sup>1</sup> By government departments.

## APPENDIX D. INVESTMENT FOR DIRECT WAR PURPOSES DURING WORLD WAR II

In the period 1939 to 1945 the Canadian economy underwent major changes. Its industrial output expanded at an unprecedented rate, and since expansion was greatest in those industries producing for war needs, it was accompanied by a realignment of the relative importance of various industries. During the war Canada was called upon to produce, both for herself and for her allies, a wide variety of articles, some of which had never been produced in Canada before, others only in small quantities. Canadian industry expanded both by increasing the output of some existing lines and by developing new or virtually new fields of production. The net result was increased diversification of the economy.

In the first few months of war Canada produced some automotive equipment, chemicals, ammunition, and uniforms and personal equipment for the British and Canadian forces. At first the greater part of these requirements could be filled by utilizing existing capacity. Peacetime industrial output in manufacturing, for example, had not again reached 1929 levels, and the decline from the 1937 peak had further increased surplus plant capacity available. This could be augmented by increasing hours per day and days per week of operation. Unemployment in 1939 provided a reserve on which both the armed services and industry could draw, and as time went on the effective civilian labour force was supplemented by the full-time labour of former part-time workers, by workers who postponed or returned from retirement, and by housewives and others not normally part of the active labour force.

A full measure of employment provided by relief works expenditures is not available. The annual reports of the Dominion Commissioner of Unemployment Relief suggest, however, that those assisted by relief works made up less than 10 per cent of the total reported to have received relief of all kinds.<sup>1</sup> From this it appears that the direct effect of the relief works program was insufficient to take up more than a small fraction of the resources, both human and material, made idle by the depression of the thirties.

Nevertheless these expenditures were of special importance in three ways. First, they prevented employment and incomes from dropping to even lower levels than in fact they did. Secondly, some relief projects were of a developmental character, e.g., mining roads and forest conservation, thus contributing to an improvement of the material fabric of the country. Thirdly, relief works were undertaken in Canada as an experiment and their execution provided experience in dealing with the many-sided problems—economic, technical, legal and administrative—of public investment undertaken primarily for its employment and income effect.

As the tempo of the war effort increased, shortages of manpower, materials and productive facilities became more frequent and more widespread. At an early stage it became necessary not only to control and allocate the use of existing supplies and facilities, but also to make a major effort to increase the physical productive plant of the nation.

The Canadian economic war effort required extensive capital expenditures in a variety of fields. The investment program undertaken to meet directly the requirements of military activities might be termed "direct war investment". It includes the construction of military and training installations, the expansion of industrial facilities to meet war needs, and the Canadian merchant shipbuilding program.

Defence construction undertaken by the Canadian Government amounted to some \$865 million. Over three-quarters of this went to the erection of buildings: non-residential buildings such as hangars and other military structures, and residential buildings, of which the two most important groups were barracks and the wartime housing program. The remainder covered miscellaneous engineering work, such as drainage, paving, and laying of airport runways.

The United States Government undertook defence construction in Canada to the value of \$341 million. The major projects were the Alaska Highway with its associated airfields and other installations, the Canol pipe line project, and construction associated with the military development of air routes in northeastern and northwestern Canada and in Labrador.

<sup>1</sup> It may be further noted that even the latter total does not include all those who were unemployed, because some unemployed did not receive any relief assistance.

Total defence construction by the two governments in Canada amounted to \$1,206 million, or over one-third of direct war investment. Of the balance, \$1,768 million represented Canada's war industrial expansion program, and \$305 million the value of merchant ships built by the Canadian Government (see below).

Item	New Investment for Direct War Purposes, 1939-1945	
	\$ Mill.	Per cent
<i>Defence Construction</i>		
Canadian Government.....	865	26
United States Government.....	341	11
Sub-total.....	1,206	37
<i>Plant Expansion</i>		
Government-Financed.....	754	23
Privately Financed.....	1,014	31
Sub-total.....	1,768	54
<i>Merchant Shipping</i>		
Government-Financed.....	305	9
Total.....	3,279	100

The Canadian Government financed directly a \$754<sup>1</sup> million plant expansion program, while the remaining \$1,014 million was privately financed with government assistance. Facilities created directly by the Federal Government ranged from complete plants with their equipment, through extensions to existing plants, to Crown-owned equipment installed in private plants. They were operated by the Crown or by private industry on behalf of the Crown. Almost a quarter of the Government's investment was in the form of additions or alterations to privately owned and operated plant. Nearly 80 per cent was in facilities operated by private industry. Crown-owned facilities were for the most part concentrated in the production of chemicals, explosives, arms and ammunition. The \$754 million plant expansion expenditures include \$206 million advanced initially by the government of the United Kingdom. This sum was later repaid by the Canadian Government.

In addition to its own expenditure on plant expansion the Canadian Government took steps to encourage private industry to undertake investment for war purposes. Some form of assistance was necessary because of the large scale of investment required, together with the uncertainty surrounding the future

usefulness of the facilities to be created. Government encouragement to private investment took the form of taxation concessions of four types.

In mid-1940 the practice was adopted of granting accelerated depreciation, for taxation purposes, on certain capital expenditures. Two types of projects were eligible: those designed to produce war materials but whose value for peace-time use appeared negligible, and those incurred under contract or sub-contract with the Canadian, British, or other Allied government. The War Contracts Depreciation Board was set up in 1940 to investigate and certify eligibility of investment projects for accelerated depreciation.

Secondly, the Aluminum Company of Canada was granted special depreciation privileges on heavy investments in electric power production and in expansion of production facilities for war purposes.

Part III of the War Exchange Conservation Act, 1940<sup>2</sup> provided for special tax credits and/or special depreciation and depletion allowances for companies undertaking capital investment projects for the purpose of increasing exports to the United States.<sup>3</sup> Between 1941 and 1943 this provision was responsible for the investment of approximately \$59 million, chiefly by the mining, lumbering, oil, and power producing industries. With improvement of the foreign exchange position, this scheme was discontinued after mid-1943.

These three depreciation schemes induced approximately \$514 million in private investment expenditures. A fourth group of tax concessions related to small tools and equipment used up rapidly in the war production process. Certain of these items could be charged to current operating expenses, thus reducing the taxable income of the companies concerned. Some \$500 million was invested in tooling up under this provision.<sup>4</sup>

As the more detailed Tables 122 and 123 in Part II show, private and public investment together resulted in substantial industrial expansion during World War II. Investment was especially heavy in production facilities for chemicals, explosives, aluminum and hydro-electric power. Expansion of hydro power facilities took place chiefly in Ontario, Quebec, and British Columbia. The largest single project was the Shipshaw development, designed to supply power for aluminum production. This industry was the chief wartime consumer of electric power, although other base metal smelting operations also made extensive use of electricity. Hydro-electric installations involved heavy investment in both construction and machinery and equipment.

In 1939 Canada produced about two-thirds of her steel needs, relying on imports for the balance, including special forms and grades. Wartime needs rendered pre-war productive capacity inadequate, and early in the war steps were taken to increase domestic facilities. Investment was heavy in blast furnaces and rolling and finishing equipment. Domestic productive capacity increased more than 50 per cent during the war.

<sup>1</sup> Net expenditure was \$718 million. The balance comprises administrative costs and small amounts for special tool purchases, miscellaneous incidental engineering work, etc. See notes to Table 122, Appendix B, p. 240.

<sup>2</sup> 4-5 George VI, Chap. 2.

<sup>3</sup> More fully, these provisions were designed to cover investment projects which would make possible increased exports to the United States, or would increase domestic output of products which would otherwise have been imported from the United States, e.g., crude oil. Many of the industries involved were of a war-supporting type.

<sup>4</sup> *Encouragement to Industrial Expansion in Canada*, pp. 13-14 and 20-21.



The growth of the shipbuilding industry illustrates some aspects of wartime industrial expansion in Canada. At the outbreak of war this industry had fifteen yards employing less than four thousand men, and engaged for the most part in repair work. In the peak year, 1943, 25 larger and 65 smaller yards gave employment to over 126,000 men and women. The industry was located on the east and west coasts, on the St. Lawrence River, and on the Great Lakes, and was turning out new ships and doing a great deal of repair work.

Expansion of the shipbuilding facilities themselves required building up production of parts and equipment. For example, the first ship orders revealed a lack of production in Canada of steel hull plates. Special radio and electrical equipment had to be made and installed. Some items, such as hydraulic steering gear, began to be produced in Canada for the first time. The shortage of materials, facilities, and skilled manpower necessitated careful scheduling and utilization of all existing facilities, e.g., the use of the machinery of pulp and paper companies in the production of valves.

The Crown itself invested \$38 million to aid in the expansion of productive facilities for the naval and cargo vessel programs. In addition, investment by private industry was facilitated by special depreciation arrangements or by recovery of capital expenditure through the price of the first units produced.

The cargo shipbuilding program<sup>1</sup> began in Canada in 1941, with contracts placed by the British Supply Board and followed by orders placed by the Canadian Government. Construction of merchant ships was under the direction of Wartime Merchant Shipping Limited, a Crown Company incorporated for the purpose.<sup>2</sup> In April 1942 another Crown Company, Park Steamship Company Limited, was incorporated to control the operation of new merchant shipping built in Canada.<sup>3</sup> Ships controlled by the Company represented an investment of \$305 million<sup>4</sup> and consisted mainly of 10,000 ton and 3,600 ton tankers and 10,000 ton and 4,700 ton cargo vessels. At the end of the war these ships were sold or chartered to Canadian companies for operation under Canadian registry.

Total direct war investment, i.e., investment in defence construction, war industrial expansion, and merchant shipping, was almost equally divided between construction and machinery and equipment (see below). Much of the material and labour for the former was available in Canada; considerable amounts of machinery, equipment, tools and parts had to be imported from the United Kingdom and the United States. Automotive, chemical and ammunition production, for example, required special machinery, a substantial proportion of which was not produced in Canada. Correspondingly large quantities of machine tools were also required, and the increase in the Canadian output in response to this need was almost six-fold. Procurement of machine

tools was handled by a Crown Company, Citadel Merchandising Company Limited, and extensive facilities were also developed for salvaging and re-conditioning certain types of machine tools.

The problems of Canadian industrial expansion were increased by the difficulties of obtaining United Kingdom supplies after 1940, by changes in specifications when it became necessary to substitute United States sources of supply, and by the shortages in the United States itself after that country entered the war.

The greatest percentage increase in war investment took place in 1941, and investment in both construction and machinery and equipment remained large for several years. Changing tactical requirements and the geographical spread of the battlefronts occasioned changes in production schedules and modifications in equipment specifications, all of which combined to keep investment in new facilities high until near the end of the war.

Year	Construction \$ Mill.	Machinery and Equipment \$ Mill.	Total \$ Mill.
1939.....	5	2	7
1940.....	116	168	284
1941.....	303	294	597
1942.....	461	347	808
1943.....	477	366	843
1944.....	201	320	521
1945.....	52	166	218
1939-45.....	1,615	1,663	3,278

War production and military requirements were also responsible for investment of a supporting or supplementary nature. A large portion of the expansion program undertaken by public utilities, not included in direct war investment, facilitated greatly the carrying out of the munitions production program, particularly in the field of hydro power generation and railway transportation. Part of the above-mentioned investment by private industry under the stimulus of Part III of the War Exchange Conservation Act may be included in this category. Some expenditures of a capital nature were also made by the Federal Government on indirect war projects. Examples include assistance to provincial governments in providing roads to strategic mineral properties, construction of buildings and purchase of equipment for the work of the National Research Council, expansion of Veterans' hospital facilities, and some of the increased accommodation in Ottawa for Federal Government departments concerned with the war effort.

The data summarized below illustrate the extent to which new investment in Canada during the war was

<sup>1</sup> Naval vessels are considered an end product in wartime, and their value is therefore not included in the nation's capital equipment. Merchant shipping, on the other hand, is an integral part of the economy's productive facilities in peace or war, and merchant vessels constructed may therefore be considered new investment in the same category as railway rolling stock, buses, or trucks.

<sup>2</sup> In 1944 the name was changed to Wartime Shipbuilding Limited.

<sup>3</sup> The Company did not itself operate ships, but chartered them to steamship companies under management agreements.

<sup>4</sup> Value of ships. Investment in shipbuilding facilities was part of the war industrial expansion program discussed above.



concentrated in fields directly related to the war effort. Direct war investment made up well over half the total in 1942 and 1943, and approximately 40 per cent in 1941 and 1944. Non-war investment continued to increase, although slowly, up to 1941, but fell off both absolutely and relatively during the next two years.<sup>1</sup> In 1944 and 1945 non-war investment rose again, while direct war investment underwent a sharp decline. For the entire period direct war investment involved \$3.3 billion and comprised 37 per cent of the \$8.9 billion total new investment in Canada.

Statistics of capital expenditures give only a very general indication of the impact of this tremendous volume of direct war investment. It should be remembered, for example, that the percentage figures below reflect not only expansion of the war effort but also the diversion of investment from non-war purposes. Combined with the comparatively low rates of investment during the thirties and the new high standards of living and income in Canada during the war, this created substantial demands for civilian investment that were becoming evident as early as 1944 and 1945. A considerable portion of the productive facilities created

for war purposes was adaptable to meet this demand,<sup>2</sup> and proved valuable in helping to alleviate the effects of the tight supply situation for many types of labour, materials and capital goods during the post-war transition period. In addition, the industrial structure that emerged from the war was capable of supplying an increased variety of capital goods previously imported.<sup>3</sup>

Year	Direct War Investment \$ Mill.	Non-War Investment \$ Mill.	Total Investment \$ Mill.	Direct War as Per cent of Total
1939.....	7	758	765	1
1940.....	284	764	1,048	27
1941.....	597	866	1,463	41
1942.....	808	734	1,542	52
1943.....	843	642	1,485	57
1944.....	521	788	1,309	40
1945.....	218	1,066	1,284	17
1939-45.....	3,278	5,618	8,896	37

<sup>1</sup> Actually this item also contains the supplementary or indirect war investment discussed in the foregoing paragraph. Available data do not permit separation of the two components.

<sup>2</sup> *Disposal and Peacetime Use of Crown Plant Buildings*, Department of Reconstruction and Supply, Ottawa, 1948, p. 13.

<sup>3</sup> It should be noted, however, that the proportion of domestic capital requirements imported has risen over the last two decades, and that imports of much specialized capital equipment remain high (see Section 1, p. 22).

# LIST OF CHARTS IN PART I.

Figure		PAGE	Figure		PAGE
1	Volume of New Investment, Exports and Gross National Product, Canada, 1926-1951.....	10	24	New Investment in Wood and Its Products Industries and in All Manufacturing, Canada, 1926-1951.....	55
2	Employment, by Sectors, Canada, 1921 and 1950..	12			
3	Volume and Value of New Investment, Canada, 1926-1951.....	16	25	New Investment in the Pulp and Paper and Their Products Industries and in All Manufacturing, Canada, 1926-1951.....	58
4	Volume of New Private and Public Investment, Canada, 1926-1951.....	18	26	New Investment in Printing, Publishing and Allied Industries and in All Manufacturing, Canada, 1926-1951.....	59
5	Volume of Federal, Provincial and Municipal Government New Investment, Canada, 1926-1951.....	19	27	New Investment in Iron and Steel and Their Products Industries and in All Manufacturing, Canada, 1926-1951.....	62
6	Volume of Business and Other New Investment, Canada, 1926-1951.....	21	28	New Investment in Transportation Equipment Industry and in All Manufacturing, Canada, 1926-1951.....	64
7	Volume of New Construction and New Machinery and Equipment, Canada, 1926-1951.....	22			
8	Value of New Investment and Repair and Maintenance, Canada, 1926-1951.....	23	29	New Investment in Non-Ferrous Metals Products Industries and in All Manufacturing, Canada, 1926-1951.....	66
9	New Investment, Construction and Machinery and Equipment, by Quarters, Canada, 1946-1950.....	24	30	New Investment in Non-Metallic Mineral Products Industries and in All Manufacturing, Canada, 1926-1951.....	69
10	New Investment in Primary Industries and the Construction Industry and Other Business Investment, Canada, 1926-1951.....	26	31	New Investment in Chemicals and Their Products Industries and in All Manufacturing, Canada, 1926-1951.....	70
11	New Investment in Agriculture and Cash Income from the Sale of Farm Products, Canada, 1926-1951.....	29	32	New Investment in Private and Public Utilities and in Other Business Enterprises, Canada, 1926-1951.....	74
12	New Investment in the Fishing Industry and Value of Fish Landed, Canada, 1926-1951.....	30			
13	New Investment in Primary Woods Operations and Gross Value of Production, Canada, 1926-1951..	32	33	New Investment and Gross Revenues, Selected Utilities, Canada, 1926-1951.....	74
14	New Investment in Primary Mining Industries and Value of Mineral Production, Canada, 1926-1951	33	34	New Construction and Machinery and Equipment Purchases, All Private and Public Utilities, Canada, 1926-1951.....	75
15	New Investment in the Construction Industry and All Construction and Repair and Maintenance, Canada, 1926-1951.....	35	35	New Investment in Privately Owned and Publicly Owned Public Utilities, Canada, 1926-1951.....	76
16	Volume of Investment and Production and Employment in Manufacturing Industries, Canada, 1926-1951.....	40	36	New Investment in Central Electric Stations and Gas-Works and in All Utilities, Canada, 1926-1951	78
17	New Investment by All Manufacturing Industries, by All Business and by All Private and Public Agencies, Canada, 1926-1951.....	42	37	New Investment in Steam Railways and Telegraphs and in All Utilities, Canada, 1926-1951.....	80
18	New Investment per Employee in Manufacturing Industries, Canada, 1939 and 1950.....	44	38	New Investment in Electric Railways and in All Utilities, Canada, 1926-1951.....	82
19	New Construction and Machinery and Equipment Purchases, All Manufacturing Industries, Canada, 1926-1951.....	45	39	New Investment in Telephones and in All Utilities, Canada, 1926-1951.....	83
20	New Investment in Food and Beverage Industries and in All Manufacturing, Canada, 1926-1951...	47	40	New Investment in Other Utilities and in All Utilities, Canada, 1926-1951.....	85
21	New Investment in Rubber, Leather and Tobacco and Their Products Industries and in All Manufacturing, Canada, 1926-1951.....	49	41	New Investment in Trade, Finance and Commercial Services, and in Other Business Enterprises, Canada, 1926-1951.....	86
22	New Investment in the Primary Textiles and Their Products Industries and in All Manufacturing, Canada, 1926-1951.....	52	42	New Residential Construction, Other New Construction and Total Private and Public Investment, Canada, 1926-1951.....	90
23	New Investment in Clothing Industry and in All Manufacturing, Canada, 1926-1951.....	54	43	Dwellings Completed, Net Family Formation and Families Without Homes of Their Own, Canada, 1926-1951.....	93
			44	New Investment in Housing and Personal Disposable Income, Canada, 1926-1951.....	94

Figure	PAGE	Figure	PAGE
45 New Institutional Investment and Total Private and Public New Investment, Canada, 1926-1951	96	52 New Investment and Repair and Maintenance, Provincial Government Departments, Canada, 1926-1951	112
46 New Investment and Repair and Maintenance, Federal Government Enterprises and Institutions, Housing and Departments, Canada, 1926-1951	102	53 New Investment and Repair and Maintenance in Building Construction and Engineering Construction, Provincial Government Departments, Canada, 1926-1951	114
47 New Investment, Repair and Maintenance and Expenditures on Other Goods and Services, Federal Government, Canada, 1926-1951	103	54 New Investment and Repair and Maintenance, Municipal Government Enterprises, Institutions and Departments, Canada, 1926-1951	119
48 New Investment and Repair and Maintenance, Federal Government Departments, Canada, 1926-1951	104	55 New Investment, Repair and Maintenance and Expenditures on Other Goods and Services, Municipal Governments, Canada, 1926-1951	120
49 New Investment and Repair and Maintenance in Building Construction and Engineering Construction, Federal Government Departments, Canada, 1926-1951	104	56 New Investment and Repair and Maintenance, Municipal Government Departments, Canada, 1926-1951	122
50 New Investment, Repair and Maintenance and Expenditures on Other Goods and Services, Provincial Governments, Canada, 1926-1951	110	57 New Investment and Repair and Maintenance, in Building Construction and Engineering Construction, Municipal Government Departments, Canada, 1926-1951	123
51 New Investment and Repair and Maintenance, Provincial Government Enterprises, Institutions, and Departments, Canada, 1926-1951	112	58 Per Capita New Investment by Provinces, Canada, 1949-1951	141



# LIST OF TABLES IN PART II.

Table	PAGE	Table	PAGE
1 Population, New Private and Public Investment, Exports and Gross National Product, Canada, 1926-1951.....	145	18 New Investment in Durable Physical Assets, Farm Cash Income, and Gross Value of Production, Primary Industries, Canada, 1926-1951.....	153
2 New Investment in Durable Physical Assets, Private and Public, in Current and Constant Dollars, Canada, 1926-1951.....	145	19 New Investment in Durable Physical Assets and Repair and Maintenance, Agriculture, Canada, 1926-1951.....	154
3 New Investment in Durable Physical Assets, All Governments, by Departments and Agencies, Canada, 1926-1951.....	146	20 New Investment in Durable Physical Assets and Repair and Maintenance, Fishing Industry, Canada, 1926-1951.....	154
4 New Investment in Durable Physical Assets and Repair and Maintenance, and Government Expenditures on Other Goods and Services, Canada, 1926-1951.....	146	21 New Investment in Durable Physical Assets and Repair and Maintenance, Primary Woods Operations, Canada, 1926-1951.....	155
5 New Investment in Durable Physical Assets and Repair and Maintenance, and Total Government Expenditures, All Governments, Canada, Selected Years, 1926-1950.....	147	22 New Investment in Durable Physical Assets and Repair and Maintenance, Primary Mining Industries, Canada, 1926-1951.....	155
6 New Investment in Durable Physical Assets, by Type of Private and Public Enterprise, in Current Dollars, Canada, 1926-1951.....	147	23 New Investment in Durable Physical Assets and Repair and Maintenance, Construction Industry, Canada, 1926-1951.....	156
7 New Investment in Durable Physical Assets, by Type of Private and Public Enterprise, in Constant Dollars, Canada, 1926-1951.....	148	24 New Investment in Durable Physical Assets and Repair and Maintenance, and Gross and Net Value of Production, All Manufacturing Industries, Canada, 1926-1951.....	156
8 New Investment in Durable Physical Assets and Repair and Maintenance, All Government Enterprises, Institutions, Housing and Departments, Canada, 1926-1951.....	148	25 Number of Establishments, Employment, Volume of Production and Investment, All Manufacturing Industries, Canada, 1926-1951.....	157
9 New Investment in Durable Physical Assets and Repair and Maintenance, All Government Departments, by Type of Expenditure, Canada, 1926-1951.....	149	26 New Investment in Durable Physical Assets and Repair and Maintenance, All Manufacturing Industries, Canada, 1926-1951.....	157
10 New Construction and Repair and Maintenance, All Government Departments, by Type, Canada, 1926-1951.....	149	27 New Investment in Durable Physical Assets and Repair and Maintenance, Food and Beverage Industries, Canada, 1926-1951.....	158
11 New Investment in Durable Physical Assets, by Type of Business and Other Enterprise, in Current Dollars, Canada, 1926-1951.....	150	28 New Investment in Durable Physical Assets and Repair and Maintenance, Rubber, Leather and Tobacco and Their Products Industries, Canada, 1926-1951.....	158
12 New Investment in Durable Physical Assets, by Type of Business and Other Enterprise, in Constant Dollars, Canada, 1926-1951.....	150	29 New Investment in Durable Physical Assets and Repair and Maintenance, Primary Textiles and Their Products Industries, Canada, 1926-1951...	159
13 New Investment in Durable Physical Assets, by Type of Expenditure, in Current and Constant Dollars, Canada, 1926-1951.....	151	30 New Investment in Durable Physical Assets and Repair and Maintenance, Clothing Industry, Canada, 1926-1951.....	159
14 New Construction and Repair and Maintenance, by Type of Enterprise, Canada, 1926-1951.....	151	31 New Investment in Durable Physical Assets and Repair and Maintenance, Wood and Its Products Industries, Canada, 1926-1951.....	160
15 New Investment in Durable Physical Assets and Repair and Maintenance, All Enterprises, by Type of Expenditure, Canada, 1926-1951.....	152	32 New Investment in Durable Physical Assets and Repair and Maintenance, Pulp and Paper and Their Products Industries, Canada, 1926-1951...	160
16 New Investment in Durable Physical Assets and Repair and Maintenance, by Quarters, Canada, 1946-1950.....	152	33 New Investment in Durable Physical Assets and Repair and Maintenance, Printing, Publishing and Allied Industries, Canada, 1926-1951.....	161
17 New Investment in Durable Physical Assets, Private and Public, and Investment in Plant, Equipment and Housing per National Accounts, Canada, 1926-1951.....	153	34 New Investment in Durable Physical Assets and Repair and Maintenance, Iron and Steel and Their Products Industries, Canada, 1926-1951...	161
		35 New Investment in Durable Physical Assets and Repair and Maintenance, Transportation Equipment Industry, Canada, 1926-1951.....	162

Table	PAGE	Table	PAGE
36 New Investment in Durable Physical Assets and Repair and Maintenance, Non-Ferrous Metals and Products Industries, Including Electrical Apparatus and Supplies, Canada, 1926-1951.....	162	52 New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public Steam Railways and Telegraphs, Canada, 1926-1951.....	170
37 New Investment in Durable Physical Assets and Repair and Maintenance, Non-Metallic Minerals and Products Industries, Including Products of Petroleum and Coal, Canada, 1926-1951.....	163	53 New Investment in Durable Physical Assets and Repair and Maintenance, Private Steam Railways and Telegraphs, Canada, 1926-1951.....	171
38 New Investment in Durable Physical Assets and Repair and Maintenance, Chemicals and Their Products Industries, Canada, 1926-1951.....	163	54 New Investment in Durable Physical Assets and Repair and Maintenance, Public Steam Railways and Telegraphs, Canada, 1926-1951.....	171
39 New Investment in Durable Physical Assets and Repair and Maintenance, Miscellaneous Manufacturing Industries, Including an Allowance for Capital Items Charged to Operating Expenses in All Manufacturing Industries, Canada, 1926-1951.....	164	55 New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public Electric Railways, Canada, 1926-1951.....	172
40 New Investment in Durable Physical Assets and Repair and Maintenance, and Gross Revenues, Selected Utilities, Canada, 1926-1951.....	164	56 New Investment in Durable Physical Assets and Repair and Maintenance, Private Electric Railways, Canada, 1926-1951.....	172
41 New Investment in Durable Physical Assets and Repair and Maintenance, All Privately and Publicly Owned Public Utilities, Canada, 1926-1951.....	165	57 New Investment in Durable Physical Assets and Repair and Maintenance, Public Electric Railways, Canada, 1926-1951.....	173
42 New Investment in Durable Physical Assets and Repair and Maintenance, All Privately Owned Public Utilities, Canada, 1926-1951.....	165	58 New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public Telephone Companies, Canada, 1926-1951.....	173
43 New Investment in Durable Physical Assets and Repair and Maintenance, All Publicly Owned Public Utilities, Canada, 1926-1951.....	166	59 New Investment in Durable Physical Assets and Repair and Maintenance, Private Telephone Companies, Canada, 1926-1951.....	174
44 New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government-Operated Public Utilities, Canada, 1926-1951....	166	60 New Investment in Durable Physical Assets and Repair and Maintenance, Public Telephone Companies, Canada, 1926-1951.....	174
45 New Investment in Durable Physical Assets and Repair and Maintenance, Provincial Government-Operated Public Utilities, Canada, 1926-1951....	167	61 New Investment in Durable Physical Assets and Repair and Maintenance, Municipal Waterworks, Canada, 1926-1951.....	175
46 New Investment in Durable Physical Assets and Repair and Maintenance, Municipal Government-Operated Public Utilities, Canada, 1926-1951.....	167	62 New Investment in Durable Physical Assets and Repair and Maintenance, Other Private and Public Utilities, Canada, 1926-1951.....	175
47 New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public Central Electric Stations and Gas-Works, Canada, 1926-1951.....	168	63 New Investment in Durable Physical Assets and Repair and Maintenance, Other Private Utilities, Canada, 1926-1951.....	176
48 New Investment in Durable Physical Assets and Repair and Maintenance, Private Central Electric Stations and Gas-Works, Canada, 1926-1951....	168	64 New Investment in Durable Physical Assets and Repair and Maintenance, Other Public Utilities, Canada, 1926-1951.....	176
49 New Investment in Durable Physical Assets and Repair and Maintenance, Public Central Electric Stations and Gas-Works, Canada, 1926-1951....	169	65 New Investment in Durable Physical Assets and Repair and Maintenance, Other Public Utilities, by Type, Canada, 1945-1951.....	177
50 New Investment in Durable Physical Assets and Repair and Maintenance, Provincial Government-Operated Central Electric Stations and Gas-Works, Canada, 1926-1951.....	169	66 New Investment in Durable Physical Assets and Repair and Maintenance, Trade, Finance and Commercial Services, Canada, 1926-1951.....	178
51 New Investment in Durable Physical Assets and Repair and Maintenance, Municipal Government-Operated Central Electric Stations and Gas-Works, Canada, 1926-1951.....	170	67 New Investment in Durable Physical Assets and Repair and Maintenance, Trade, Canada, 1926-1951.....	178
		68 New Investment in Durable Physical Assets and Repair and Maintenance, Finance, Canada, 1926-1951.....	179
		69 New Investment in Durable Physical Assets and Repair and Maintenance, Commercial Services, Canada, 1926-1951.....	179
		70 New Investment in Durable Physical Assets and Repair and Maintenance, Housing, Canada, 1926-1951.....	180

Table	PAGE	Table	PAGE
71 Dwellings Completed, Net Family Formation, Non-Family Households Occupying Separate Dwellings and Families Without Homes of Their Own, Canada, 1926-1951.....	180	89 New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government Departments, by Province, Canada, Selected Years, 1926-1948.....	189
72 New Residential Construction and Personal Disposable Income, Canada, 1926-1951.....	181	90 New Investment in Durable Physical Assets and Repair and Maintenance, Provincial Government Enterprises, Institutions and Departments, Canada, 1926-1951.....	189
73 New Investment in Durable Physical Assets and Repair and Maintenance, All Private and Public Institutions, Canada, 1926-1951.....	181	91 New Investment in Durable Physical Assets and Repair and Maintenance, and Expenditures on Other Goods and Services, All Provincial Governments, Canada, 1926-1951.....	190
74 New Investment in Durable Physical Assets and Repair and Maintenance, All Private Institutions, Canada, 1926-1951.....	182	92 New Investment in Durable Physical Assets and Repair and Maintenance, and Total Government Expenditures, All Provincial Governments, Canada, Selected Years, 1926-1950.....	190
75 New Investment in Durable Physical Assets and Repair and Maintenance, All Public Institutions, Canada, 1926-1951.....	182	93 New Investment in Durable Physical Assets and Repair and Maintenance, All Provincial Government Departments, by Type of Expenditure, Canada, 1926-1951.....	191
76 New Investment in Durable Physical Assets and Repair and Maintenance, Churches, Canada, 1926-1951.....	183	94 New Investment in Durable Physical Assets, All Provincial Government Departments, by Type of Project, Canada, Selected Years, 1926-1948...	191
77 New Investment in Durable Physical Assets and Repair and Maintenance, Universities, Canada, 1926-1951.....	183	95 New Investment in Durable Physical Assets and Repair and Maintenance, All Provincial Government Departments, by Type of Project, Canada, Selected Years, 1926-1948.....	192
78 New Investment in Durable Physical Assets and Repair and Maintenance, Municipal Schools, Canada, 1926-1951.....	184	96 New Construction and Repair and Maintenance, All Provincial Government Departments, by Type, Canada, 1926-1951.....	192
79 New Investment in Durable Physical Assets and Repair and Maintenance, Private and Public Hospitals, Canada, 1926-1951.....	184	97 New Investment in Durable Physical Assets and Repair and Maintenance, All Provincial Government Departments, by Province, Canada, Selected Years, 1926-1951.....	193
80 New Investment in Durable Physical Assets and Repair and Maintenance, Private Hospitals, Canada, 1926-1951.....	185	98 New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Newfoundland, Selected Years, 1941-1950.....	194
81 New Investment in Durable Physical Assets and Repair and Maintenance, Public Hospitals, Canada, 1926-1951.....	185	99 New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Prince Edward Island, Selected Years, 1926-1948.....	194
82 New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government Enterprises, Institutions, Housing and Departments, Canada, 1926-1951.....	186	100 New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Nova Scotia, Selected Years, 1926-1948.....	194
83 New Investment in Durable Physical Assets and Repair and Maintenance, and Expenditures on Other Goods and Services, Federal Government, Canada, 1926-1951.....	186	101 New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, New Brunswick, Selected Years, 1926-1948.....	195
84 New Investment in Durable Physical Assets and Repair and Maintenance, and Total Government Expenditures, Federal Government, Canada, Selected years, 1926-1950.....	187	102 New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Quebec, Selected Years, 1926-1948.....	195
85 New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government Departments, by Type of Expenditure, Canada, 1926-1951.....	187	103 New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Ontario, Selected Years, 1926-1948.....	195
86 New Investment in Durable Physical Assets, Federal Government Departments, by Type of Project, Canada, Selected Years, 1926-1948.....	187		
87 New Investment in Durable Physical Assets and Repair and Maintenance, Federal Government Departments, by Type of Project, Canada, Selected Years, 1926-1948.....	188		
88 New Construction and Repair and Maintenance, Federal Government Departments, by Type, Canada, 1926-1951.....	188		



Table	PAGE	Table	PAGE
104	New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Manitoba, Selected Years, 1926-1948.....	113	New Investment in Durable Physical Assets and Repair and Maintenance, All Municipal Government Departments, by Type of Project, Canada, Selected Years, 1926-1948.....
	196		199
105	New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Saskatchewan, Selected Years, 1926-1948.....	114	New Construction and Repair and Maintenance, All Municipal Government Departments, by Type, Canada, 1926-1951.....
	196		200
106	New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, Alberta, Selected Years, 1926-1948.....	115	New Investment in Durable Physical Assets and Repair and Maintenance, All Municipal Government Departments, by Province, Canada, Selected Years, 1933-1951.....
	196		200
107	New Investment in Durable Physical Assets and Repair and Maintenance, Government Departments, by Type of Project, British Columbia, Selected Years, 1926-1948.....	116	New Investment in Durable Physical Assets, by Type of Enterprise and by Province, Canada, 1948-1951.....
	197		201
108	New Investment in Durable Physical Assets and Repair and Maintenance, Municipal Government Enterprises, Institutions and Departments, Canada, 1926-1951.....	117	Repair and Maintenance of Durable Physical Assets, by Type of Enterprise and by Province, Canada, 1948-1951.....
	197		202
109	New Investment in Durable Physical Assets and Repair and Maintenance, and Expenditures on Other Goods and Services, All Municipal Governments, Canada, 1926-1951.....	118	New Investment in Durable Physical Assets and Repair and Maintenance, by Type of Enterprise and by Province, Canada, 1948-1951.....
	198		203
110	New Investment in Durable Physical Assets and Repair and Maintenance, and Total Government Expenditures, All Municipal Governments, Canada, Selected Years, 1926-1950.....	119	New Investment in Durable Physical Assets and Repair and Maintenance, Manufacturing Industries, by Province, Canada, 1945-1951.....
	198		204
111	New Investment in Durable Physical Assets and Repair and Maintenance, All Municipal Government Departments, by Type of Expenditure, Canada, 1926-1951.....	120	New Investment in Durable Physical Assets and Repair and Maintenance, Manufacturing Industries, by City, Canada, 1946-1951.....
	199		205
112	New Investment in Durable Physical Assets, All Municipal Government Departments, by Type of Project, Canada, Selected Years, 1926-1948..	121	Expenditures on Relief Works and Total Relief, All Governments, Canada, 1930-1940.....
	199		208
		122	New Investment in Durable Physical Assets for Direct War Purposes, by Sponsoring Authority, Canada, 1939-1945.....
			208
		123	New Investment in Durable Physical Assets for Direct War Purposes, by Type of Project, Canada, 1939-1945.....
			208





















